Gmsh: A 3-D finite element mesh generator with built-in pre- and post-processing facilities

DOI: 10.1002/nme.2579
International Journal for Numerical Methods in Engineering, 2009, 79, 1309-1331.

#	Paper	IF	Citations
2234	A Complete Open-Source Solution for Electromagnetic Field Computation.		
2233	250 kV sub-nanosecond pulse generator with adjustable pulse-width. **2007**, 14, 884-888		26
2232	Generalization of the Ideal Crack Model for an Arrayed Eddy Current Sensor. **2008**, 44, 1638-1641		13
2231	The role of cortical shell and trabecular fabric in finite element analysis of the human vertebral body. **2009**, 131, 111003		50
2230	Influence of flow confinement on the drag force on a static cylinder. **2009**, 21, 103604		17
2229	Numerical studies of quasi-static tectonic loading and dynamic rupture of bi-material interfaces. **2009**, 22, 1684-1702		8
2228	A flux-limiting wetting□drying method for finite-element shallow-water models, with application to the Scheldt Estuary. **2009**, 32, 1726-1739		36
2227	An improved equivalent magnetization current method applied to the design of local breast gradient coils. **2009**, 199, 48-55		25
2226	High-order discontinuous Galerkin schemes on general 2D manifolds applied to the shallow water equations. **2009**, 228, 6514-6535		34
2225	Joint PDF Modelling of Turbulent Flow and Dispersion in an Urban Street Canyon. **2009**, 131, 245-261		6
2224	Development of a magnetic sensor for detection and sizing of internal pipeline corrosion defects. **2009**, 42, 669-677		82
2223	A software platform for nanoscale device simulation and visualization. **2009**,		1
2222	Small and robust antennas for concrete embedded sensors. **2009**,		0
2221	Finite Formulation in 2D for the analysis of an electrostatic induction micromotor. **2009**,		
2220	Practical evaluation of five partly discontinuous finite element pairs for the non-conservative shallow water equations. **2009**, 63, n/a-n/a		9
2219	Adaptive Mesh Generation and Visualization. **2010**,		0
2218	Prediction of surface characteristics obtained by burnishing. **2010**, 51, 205-215		18

2217	Implicit LU-SGS algorithm for high-order methods on unstructured grid with p-multigrid strategy for solving the steady Navier–Stokes equations. **2010**, 229, 828-850		17
2216	High-order schemes for 2D unsteady biogeochemical ocean models. **2010**, 60, 1415-1445		21
2215	A finite element sea ice model of the Canadian Arctic Archipelago. **2010**, 60, 1539-1558		13
2214	Gradient-based shape optimisation of ultra-wideband antennas parameterised using splines. **2010**, 4, 1406		8
2213	The Equivalent Matrices of a Periodic Structure. **2010**, 57, 1687-1695		3
2212	Transformation Optics, Generalized Cloaking and Superlenses. **2010**, 46, 2975-2981		14
2211	Size Is in the Eye of the Beholder: Technique for Nondestructive Detection of Parameterized Defects. **2010**, 46, 3006-3009		4
2210	A mesh adaptation framework for dealing with large deforming meshes. *International Journal for Numerical Methods in Engineering*, **2010**, 82, 843-867	2.4	42
2209	High-quality surface remeshing using harmonic maps. *International Journal for Numerical Methods in Engineering*, **2010**, 83, 403-425	2.4	46
2208	Dual adaptive finite element refinement for multiple local quantities in linear elastostatics. *International Journal for Numerical Methods in Engineering*, **2010**, 83, 347-365	2.4	7
2207	A partition of unity finite element method for obtaining elastic properties of continua with embedded thin fibres. *International Journal for Numerical Methods in Engineering*, **2010**, 84, 708-732	2.4	32
2206	Factorized parallel preconditioner for the saddle point problem. **2010**, 27, n/a-n/a		1
2205	Quality meshing based on STL triangulations for biomedical simulations. **2010**, 26, n/a-n/a		4
2204	Towards generating optimised finite element solvers for GPUs from high-level specifications. **2010**, 1, 1815-1823		22
2203	An implicit high-order spectral difference approach for large eddy simulation. **2010**, 229, 5373-5393		45
2202	Thermal chaotic mixing of power-law fluids in a mixer with alternately rotating walls. **2010**, 165, 641-651		17
2201	Alternate rotating walls for thermal chaotic mixing. **2010**, 53, 123-134		34
2200	Multi-orifice active tilting-pad journal bearings—harnessing of synergetic coupling effects. **2010**, 43, 1374-1391		29

2199	Stability of multi orifice active tilting-pad journal bearings. **2010**, 43, 1742-1750	22
2198	Simple test cases for validating a finite element unstructured grid fecal bacteria transport model. **2010**, 34, 3055-3070	3
2197	A finite-element, multi-scale model of the Scheldt tributaries, river, estuary and ROFI. **2010**, 57, 850-863	56
2196	Construction of a high order fluid□tructure interaction solver. **2010**, 234, 2358-2365	8
2195	2-D non-periodic homogenization to upscale elastic media for P□V waves. **2010**, 182, 903-922	90
2194	Homology in Electromagnetic Boundary Value Problems. **2010**, 2010, 381953	6
2193	Finite-element contrast source inversion method for microwave imaging. **2010**, 26, 115010	77
2192	A study of adaptive meshing in FEM-CSI for microwave tomography. **2010**,	2
2191	. **2010**,	1
2190	THE BLOCK GAUSS□EIDEL METHOD IN SOUND TRANSMISSION PROBLEMS. **2010**, 18, 13-30	1
2189	Curved Boundary Treatments for the Discontinuous Galerkin Method Applied to Aeroacoustic Propagation. **2010**, 48, 479-489	19
2188	ART-ML - a novel XML format for the biological procedures modeling and the representation of blood flow simulation. **2010**, 2010, 1490-3	
2187	Analysis of a Nondestructive Evaluation Technique for Defect Characterization in Magnetic Materials Using Local Magnetic Measurements. **2010**, 2010, 1-18	4
2186	On a simple scheme for computing the electronic energy levels of a finite system from those of the corresponding infinite system. **2010**, 22, 435502	4
2185	Tip-enhanced Raman scattering from bridged nanocones. **2010**, 18, 23790-5	13
2184	Multistep and Multistage Convolution Quadrature for the Wave Equation: Algorithms and Experiments. **2010**, 32, 2964-2994	46
2183	Geodetic imaging of plate motions, slip rates, and partitioning of deformation in Japan. **2010**, 115,	202
2182	Normal and reverse faulting driven by the subduction zone earthquake cycle in the northern Chilean fore arc. **2010**, 29, n/a-n/a	28

2181 Development of LES-High-Order Spectral Difference Method for Flow Induced Noise Simulation. **2010**,

2180 Eulerian Solenoidal Digital Filtering Technique for Broadband Trailing-Edge Noise Prediction. **2010**, 1

2179 An Unstructured, Three-Dimensional, Shock-Fitting Solver for Hypersonic Flows. **2010**, 5

2178 A Comprehensive Methodology to Visualize Articulations for the Physiological Human. **2010**, 1

2177 An efficient approach for the numerical identification of R, L parameters of high frequency multiwinding transformers. **2010**,

2176 Numerical homogenization of heterogeneous media using FVTD simulations. **2010**, 1

2175 Finite Element modelling of adhesion phenomena in MEMS. **2010**, 5

2174 Numerical analysis of electric field at the contact point between a spacer aerial cable and a spacer. **2011**, 4

2173 A flexible turbine blade for passive blade pitch control in wind turbines. **2011**, 2

2172 Modeling scattering from lightning-induced ionospheric disturbances with the discontinuous Galerkin method. **2011**, 116, n/a-n/a 3

2171 Field deposition from metallic tips onto insulating substrates. **2011**, 22, 465301 4

2170 How the brain tissue shapes the electric field induced by transcranial magnetic stimulation. **2011**, 58, 849-59 205

2169 Impact of the gyral geometry on the electric field induced by transcranial magnetic stimulation. **2011**, 54, 234-43 250

2168 Modeling magnetotransport in inhomogeneous (Ge,Mn) films. **2011**, 109, 123906 4

2167 Euler/Navier-Stokes couplings for multiscale aeroacoustic problems. **2011**, 3

2166 Unstructured three-dimensional High Order Grids for Discontinuous Galerkin Schemes. **2011**, 1

2165 High-Order CENO Finite-Volume Schemes for Multi-Block Unstructured Mesh. **2011**, 5

2164 Numerical modeling of tensile fracture initiation and propagation in snow slabs using nonlocal damage mechanics. **2011**, 69, 145-155 7

2163	Semi-stochastic generator (FraGMA) of 2D fractured media by mechanistic analogy Application to reactive transport in a fractured package of vitrified nuclear waste. **2011**, 50, 1387-1398		8
2162	Model experiments and numerical simulations for directional solidification of multicrystalline silicon in a traveling magnetic field. **2011**, 333, 7-15		30
2161	Modelling Escherichia coli concentrations in the tidal Scheldt river and estuary. **2011**, 45, 2724-38		45
2160	Geostrophic balance preserving interpolation in mesh adaptive linearised shallow-water ocean modelling. **2011**, 37, 35-48		3
2159	The impact of mesh adaptivity on the gravity current front speed in a two-dimensional lock-exchange. **2011**, 38, 1-21		30
2158	Accurate representation of geostrophic and hydrostatic balance in unstructured mesh finite element ocean modelling. **2011**, 39, 248-261		11
2157	Automated electrical machine design with differential evolution techniques. **2011**,		5
2156	High-quality surface remeshing using harmonic maps Part II: Surfaces with high genus and of large aspect ratio. *International Journal for Numerical Methods in Engineering*, **2011**, 86, 1303-1321	2.4	19
2155	Plasmon resonances of carbon-nanotube-based dipole antennas for nano-interconnects. **2011**,		4
2154	. **2011**, 59, 4162-4170		6
2153	The Aerodynamic Behavior of Fibers in a Linear Shear Flow. **2011**, 45, 1260-1271		4
2152	Forward and adjoint simulations of seismic wave propagation on fully unstructured hexahedral meshes. **2011**, 186, 721-739		200
2151	Atom probe trajectory mapping using experimental tip shape measurements. **2011**, 244, 170-80		47
2150	The 2008 Yutian normal faulting earthquake (Mw 7.1), NW Tibet: Non-planar fault modeling and implications for the Karakax Fault. **2011**, 511, 125-133		36
2149	Numerical study of dynamic relaxation with kinetic damping applied to inflatable fabric structures with extensions for 3D solid element and non-linear behavior. **2011**, 49, 1468-1474		25
2148	Analysis of the implicit LU-SGS algorithm for 3rd- and 4th-order spectral volume scheme for solving the steady Navier Stokes equations. **2011**, 230, 7073-7085		4
2147	Residence time, exposure time and connectivity in the Scheldt Estuary. **2011**, 84, 85-95		69
2146	A variational formulation for the incremental homogenization of elasto-plastic composites. **2011**, 59, 2455-2475		46

2145	Accelerating the Convergence of Algebraic Multigrid for Quadratic Finite Element Method by Using Grid Information and p-Multigrid. **2011**, 47, 1198-1201		1
2144	Modeling the transition of microcracks into macrocracks in heterogeneous viscoelastic media using a two-way coupled multiscale model. **2011**, 48, 3160-3175		23
2143	A one field full discontinuous Galerkin method for Kirchhoff–Love shells applied to fracture mechanics. **2011**, 200, 3223-3241		18
2142	Coupled viscoelastic–viscoplastic modeling of homogeneous and isotropic polymers: Numerical algorithm and analytical solutions. **2011**, 200, 3381-3394		44
2141	Vertical drain consolidation analysis in one, two and three dimensions. **2011**, 38, 1069-1077		10
2140	Impact of shape of container on natural convection and melting inside enclosures used for passive cooling of electronic devices. **2011**, 31, 3022-3035		62
2139	Magnetization structure of a Bloch point singularity. **2011**, 82, 159-166		26
2138	Validation of void growth models using X-ray microtomography characterization of damage in dual phase steels. **2011**, 59, 7564-7573		120
2137	A mass-conservative control volume-finite element method for solving Richards' equation in heterogeneous porous media. **2011**, 51, 845-864		8
2136	Preliminary results of a finite-element, multi-scale model of the Mahakam Delta (Indonesia). **2011**, 61, 1107-1120		19
2135	Fully discrete finite element scheme for Maxwell's equations with non-linear boundary condition. **2011**, 375, 230-244		9
2134	Accelerated non-linear finite volume method for diffusion. **2011**, 230, 2722-2735		9
2133	Efficient and accurate simulations of deformable particles immersed in a fluid using a combined immersed boundary lattice Boltzmann finite element method. **2011**, 61, 3485-3505		218
2132	A fully implicit wetting–drying method for DG-FEM shallow water models, with an application to the Scheldt Estuary. **2011**, 200, 509-524		77
2131	Advances in the reconstruction of atom probe tomography data. **2011**, 111, 448-57		187
2130	Discontinuous Galerkin methods in nanophotonics. **2011**, 5, 773-809		102
2129	Accurate fracture modelling using meshless methods, the visibility criterion and level sets: Formulation and 2D modelling. *International Journal for Numerical Methods in Engineering*, **2011**, 86, 249-268	2.4	89
2128	Filters in topology optimization based on Helmholtz-type differential equations. *International Journal for Numerical Methods in Engineering*, **2011**, 86, 765-781	2.4	350

2127	A partitioning strategy for the coupled hygromechanical analysis with application to wood structures of cultural heritage. *International Journal for Numerical Methods in Engineering*, **2011**, 88, 228-256	2.4	7
2126	Subdivision shells with exact boundary control and non-manifold geometry. *International Journal for Numerical Methods in Engineering*, **2011**, 88, 897-923	2.4	50
2125	Microscale prediction of deformation in an austenitic stainless steel under uniaxial loading. **2011**, 30, 748-760		19
2124	Conservative interpolation between volume meshes by local Galerkin projection. **2011**, 200, 89-100		187
2123	Finite element analysis on implicitly defined domains: An accurate representation based on arbitrary parametric surfaces. **2011**, 200, 774-796		74
2122	A high-performance parallel implementation of the certified reduced basis method. **2011**, 200, 1455-1466		29
2121	Large-scale 3D random polycrystals for the finite element method: Generation, meshing and remeshing. **2011**, 200, 1729-1745		558
2120	An extended residual-based variational multiscale method for two-phase flow including surface tension. **2011**, 200, 1866-1876		28
2119	Balanced truncation model reduction for systems with inhomogeneous initial conditions. **2011**, 47, 559-564		36
2118	Two-scale analysis for very rough thin layers. An explicit characterization of the polarization tensor. **2011**, 95, 277-295		5
2117	Hybrid mixture theory based moisture transport and stress development in corn kernels during drying: Validation and simulation results. **2011**, 106, 275-282		28
2116	3D XFEM-based modeling of retraction for preoperative image update. **2011**, 16, 121-34		13
2115	Modelling the retreat of Grosser Aletschgletscher, Switzerland, in a changing climate. **2011**, 57, 1033-1045		85
2114	Computation of Casimir interactions between arbitrary three-dimensional objects with arbitrary material properties. **2011**, 84,		22
2113	Simplicial dijkstra and A* algorithms for optimal feedback planning. **2011**,		11
2112	Numerical scattering from 3D randomly rough surfaces using FVTD. **2011**,		2
2111	Facilitating the Adoption of Unstructured High-Order Methods Amongst a Wider Community of Fluid Dynamicists. **2011**, 6, 97-140		53
2110	Fast oriented bounding box optimization on the rotation group SO (3,R). **2011**, 30, 1-16		26

2109	VALIDATION AND APPLICATION OF AN HIGH-ORDER SPECTRAL DIFFERENCE METHOD FOR FLOW INDUCED NOISE SIMULATION. **2011**, 19, 241-268	13
2108	A computational clonal analysis of the developing mouse limb bud. **2011**, 7, e1001071	25
2107	A displacement-pressure finite element formulation for analyzing the sound transmission in ducted shear flows with finite poroelastic lining. **2011**, 130, 42-51	17
2106	Fast computation of R, L parameters of high frequency multi-winding magnetic components. **2011**, 30, 1914-1926	2
2105	A Dynamic hp-Adaptive Discontinuous Galerkin Method for Shallow-Water Flows on the Sphere with Application to a Global Tsunami Simulation. **2012**, 140, 978-996	39
2104	The Role of Mesh Generation, Adaptation, and Refinement on the Computation of Flows Featuring Strong Shocks. **2012**, 2012, 1-15	5
2103	Serial FEM/XFEM-Based Update of Preoperative Brain Images Using Intraoperative MRI. **2012**, 2012, 872783	11
2102	3-dimensional eigenmodal analysis of plasmonic nanostructures. **2012**, 20, 5481-500	7
2101	Thermal and optical aspects of color conversion in phosphor based white LED light sources. **2012**,	
2100	Discontinuous Galerkin Method for acoustic modes computation in lined ducts. **2012**,	8
2099	A Dual Free Layer Sensor With Side Shields. **2012**, 48, 3547-3550	3
2098	Underwater object tracking using electrical impedance tomography. **2012**,	10
2097	Wavefront Topology System & finite element method applied to orthogonal mesh structures. **2012**,	
2096	Development and application of multi-disciplinary optimization capabilities based on high-fidelity methods. **2012**,	13
2095	Computational Considerations for the Prediction of Stall Flutter. **2012**,	
2094	Improved fast edge and facet finding algorithms for the RWG and SWG basis functions. **2012**,	1
2093	FAST MULTIPOLE BOUNDARY ELEMENT METHOD FOR THREE DIMENSIONAL ELECTROMAGNETIC SCATTERING PROBLEM. **2012**, 01, 1250038	3
2092	Evaluation of a Spacetime Formulation of the Euler Equations. **2012**,	2

2091	Interfacing Thin-Wire and Circuit Subcell Models in Unstructured Time-Domain Field Solvers. **2012**, 60, 1978-1986	35
2090	Distribution transformer cooling system improvement by innovative tank panel geometries. **2012**, 19, 1021-1028	7
2089	A 3D hp-adaptive discontinuous Galerkin method for modeling earthquake dynamics. **2012**, 117,	33
2088	Finite element transient thermal analysis of PMSM for aerospace applications. **2012**,	3
2087	Hox genes regulate digit patterning by controlling the wavelength of a Turing-type mechanism. **2012**, 338, 1476-80	247
2086	Predicting rupture arrests, rupture jumps and cascading earthquakes. **2012**, 117, n/a-n/a	9
2085	PTetra, a Tool to Simulate Low Orbit Satellite–Plasma Interaction. **2012**, 40, 217-229	50
2084	Numerical rough surface scattering simulations using the FVTD method. **2012**,	
2083	Bicruciate substituting total knee replacement: how effective are the added kinematic constraints in vivo?. **2012**, 20, 2002-10	26
2082	A quasi-optimal non-overlapping domain decomposition algorithm for the Helmholtz equation. **2012**, 231, 262-280	81
2081	A three-dimensional model for the study of the cooling system of submersible electric pumps. **2012** , 82, 2962-2970	3
2080	. **2012**, 11, 964-974	18
2079	Study of stator core-end packets under the action of two incident fluxes – Real scale model. **2012**,	
2078	Understanding the Magnetization Reversal in Six-Fold Anisotropic Hexagonal Networks. **2012**, 48, 2793-2796	2
2077	FPGA based acceleration of computational fluid flow simulation on unstructured mesh geometry. **2012**,	6
2076	Parameterized modeling and thermal analysis of high-power LED package with GMSH and GetDP. **2012**,	
2075	Numerical modelling of anchor losses in MEMS resonators. **2012**,	
2074	Memory access optimization for computations on unstructured meshes. **2012**,	4

2073	Surface integral formulations for the design of plasmonic nanostructures. **2012**, 29, 2314-27	29
2072	Towards energy resolution at the statistical limit from a negative ion time projection chamber. **2012**, 686, 106-111	3
2071	Mesolevel Modeling of Failure in Composite Laminates: Constitutive, Kinematic and Algorithmic Aspects. **2012**, 19, 381-425	33
2070	Measurement and simulation of anisotropic magnetoresistance in single GaAs/MnAs core/shell nanowires. **2012**, 100, 182402	13
2069	Fast solution of direct and inverse design problems concerning furnace operation conditions in steel industry. **2012**, 47, 41-53	16
2068	RETRACTED: Convergence of the mixed finite element method for Maxwell□ equations with non-linear conductivity. **2012**, 236, 4893-4908	
2067	Saltwater intrusion modeling: Verification and application to an agricultural coastal arid region in Oman. **2012**, 236, 4798-4809	35
2066	Flow structures in cerebral aneurysms. **2012**, 65, 56-65	27
2065	Computational prediction of the lifetime of self-healing CMC structures. **2012**, 43, 294-303	29
2064	Imposing periodic boundary condition on arbitrary meshes by polynomial interpolation. **2012**, 55, 390-406	148
2063	Mesoscale simulation of concrete spall failure. **2012**, 206, 139-148	9
2062	STEPS: efficient simulation of stochastic reaction-diffusion models in realistic morphologies. **2012**, 6, 36	96
2061	Numerical computation of simulated polarimetric radar imagery for electrically-large aircrafts. **2012** ,	
2060	Quality open source mesh generation for cardiovascular flow simulations. **2012**, 395-414	6
2059	Damage in step-overs may enable large cascading earthquakes. **2012**, 39, n/a-n/a	20
2058	Stress-induced permeability evolution in a quasi-brittle geomaterial. **2012**, 117, n/a-n/a	24
2057	A well-balanced, third-order-accurate RKDG scheme for SWE on curved boundary domains. **2012**, 46, 31-45	9
2056	Micro-mechanical modelling of high cycle fatigue behaviour of metals under multiaxial loads. **2012**, 55, 112-129	36

2055	Simulation of the Temperature Change Induced by a Laser Pulse on a CFRP Composite Using a Finite Element Code for Ultrasonic Non-Destructive Testing. **2012**, 103-115		
2054	A Monte Carlo Method for Simulating Scattering From Sea Ice Using FVTD. **2012**, 50, 2658-2668		9
2053	Three-Dimensional Hydromechanical Sectional Analysis of Cracked Nonprismatic Concrete Spillway Piers. **2012**, 138, 1310-1320		1
2052	MoM Matrix Generation Based on Frequency and Material Independent Reactions (FMIR-MoM). **2012**, 60, 5777-5786		14
2051	Bench scale laboratory tests to analyze non-linear flow in fractured media. **2012**, 16, 2511-2522		65
2050	Flow Curve and Failure Modeling for High-Mn Steels on a Microstructural Scale. **2012**, 83, 340-345		0
2049	Model-based elastography: a survey of approaches to the inverse elasticity problem. **2012**, 57, R35-73		205
2048	Convergence of the mixed finite element method for Maxwell's equations with nonlinear conductivity. **2012**, 35, 1489-1504		3
2047	Application of an elastoplastic spectral-element method to 3D slope stability analysis. *International Journal for Numerical Methods in Engineering*, **2012**, 91, 1-26	2.4	27
2046	Fracture modeling using meshless methods and level sets in 3D: Framework and modeling. *International Journal for Numerical Methods in Engineering*, **2012**, 92, 969-998	2.4	257
2045	Three-dimensional integration strategies of singular functions introduced by the XFEM in the LEFM. *International Journal for Numerical Methods in Engineering*, **2012**, 92, 1117-1138	2.4	22
2044	Conservative unsteady aerodynamic simulation of arbitrary boundary motion using structured and unstructured meshes in time. **2012**, 70, 1518-1542		10
2043	Generating smooth surface meshes from multi-region medical images. **2012**, 28, 642-60		13
2042	Analysis of micro fracture in human Haversian cortical bone under compression. **2012**, 28, 974-98		22
2041	A Gauss-Newton Method for the Integration of Spatial Normal Fields in Shape Space. **2012**, 44, 65-79		6
2040	An effective visualisation and registration system for image-guided robotic partial nephrectomy. **2012**, 6, 23-31		45
2039	Laminar mixing and heat transfer for constant heat flux boundary condition. **2012**, 48, 1285-1296		3
2038	Suitability of linear quadrupole ion traps for large Coulomb crystals. **2012**, 107, 1097-1104		7

2037	Mesh generation in archipelagos. **2012**, 62, 1217-1228	4
2036	High order methods for the approximation of the incompressible Navier–Stokes equations in a moving domain. **2012**, 209-212, 197-211	3
2035	p=2 Continuous finite elements on tetrahedra with local mass matrix inversion. **2012**, 213-216, 289-298	2
2034	A multiscale mean-field homogenization method for fiber-reinforced composites with gradient-enhanced damage models. **2012**, 233-236, 164-179	28
2033	Broadband trailing-edge noise prediction with a stochastic source model. **2012**, 57, 98-109	6
2032	Elastic sectional stress analysis of variable section piers subjected to three-dimensional loads. **2012**, 90-91, 28-41	1
2031	Simulation of multistage excavation based on a 3D spectral-element method. **2012**, 100-101, 54-69	13
2030	X-FEM implementation of VAMUCH: Application to active structural fiber multi-functional composite materials. **2012**, 94, 1297-1304	23
2029	Effect of temperature on the mechanical response of thermo-viscoelastic asphalt pavements. **2012**, 30, 574-582	21
2028	Influence of gravel distribution on the variability of chloride penetration front in saturated uncracked concrete. **2012**, 34, 63-69	10
2027	Power transformer thermal analysis by using an advanced coupled 3D heat transfer and fluid flow FEM model. **2012**, 53, 188-201	56
2026	An enhanced continuous–discontinuous multiscale method for modeling mode-I cohesive failure in random heterogeneous quasi-brittle materials. **2012**, 79, 78-102	51
2025	A level set model for delamination – Modeling crack growth without cohesive zone or stress singularity. **2012**, 79, 191-212	35
2024	Identification of supershear transition mechanisms due to material contrast at bimaterial faults. **2012**, 190, 1169-1180	11
2023	A novel CFD – Axial motion coupled model for the axial balance of lateral bushings in external gear machines. **2012**, 26, 60-76	36
2022	Predicting fracture using 2D finite element modelling. **2012**, 34, 478-84	19
2021	AGATA – Advanced GAmma Tracking Array. **2012**, 668, 26-58	295
2020	Simulation of an integrated steam generator for solar tower. **2012**, 86, 578-592	15

2019	A verification exercise in multiphysics simulations for coupled reactor physics calculations. **2012**, 55, 12-32		23
2018	The Elastoplast Discontinuous Galerkin (EDG) method for the Navier-Stokes equations. **2012**, 231, 1-22		5
2017	Fast directional multilevel summation for oscillatory kernels based on Chebyshev interpolation. **2012**, 231, 1175-1196		40
2016	CAD and mesh repair with Radial Basis Functions. **2012**, 231, 2376-2387		23
2015	The orthogonal gradients method: A radial basis functions method for solving partial differential equations on arbitrary surfaces. **2012**, 231, 4662-4675		55
2014	An h-adaptive finite element solver for the calculations of the electronic structures. **2012**, 231, 4967-4979		39
2013	Discontinuous Galerkin Method for Computing Induced Fields in Superconducting Materials. **2012**, 48, 591-594		13
2012	FEM-BEM coupling for the exterior Stokes problem with non-conforming finite elements and an application to small droplet deformation dynamics. **2012**, 68, 522-536		2
2011	Computational homogenization for multiscale crack modeling. Implementational and computational aspects. *International Journal for Numerical Methods in Engineering*, **2012**, 89, 192-226	2.4	63
2010	Blossom-Quad: A non-uniform quadrilateral mesh generator using a minimum-cost perfect-matching algorithm. *International Journal for Numerical Methods in Engineering*, **2012**, 89, 1102-1119	2.4	72
2009	Visual data exploration for hydrological analysis. **2012**, 65, 1395-1403		30
2008	Fluid-structure interaction of a morphing symmetrical wind turbine blade subjected to variable load. **2013**, 37, 69-79		24
2007	Multirate time stepping for accelerating explicit discontinuous Galerkin computations with application to geophysical flows. **2013**, 71, 41-64		28
2006	Finite element assembly strategies on multi-core and many-core architectures. **2013**, 71, 80-97		70
2005	Non-conforming finite elements for axisymmetric charged droplet deformation dynamics and Coulomb explosions. **2013**, 71, 249-268		7
2004	Electric field calculations in brain stimulation based on finite elements: an optimized processing pipeline for the generation and usage of accurate individual head models. **2013**, 34, 923-35		267
2003	A full-discontinuous Galerkin formulation of nonlinear Kirchhoff-Love shells: elasto-plastic finite deformations, parallel computation, and fracture applications. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 80-117	2.4	27
2002	An extended finite element method approach for structural-acoustic problems involving immersed structures at arbitrary positions. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 376-399	2.4	5

2001	Parallel framework for topology optimization using the method of moving asymptotes. **2013**, 47, 493-505	102
2000	Fully computable a posteriori error bounds for stabilised FEM approximations of convection–reaction–diffusion problems in three dimensions. **2013**, 73, n/a-n/a	3
1999	Robust inside-outside segmentation using generalized winding numbers. **2013**, 32, 1-12	81
1998	Treatment planning for a TCPC test case: a numerical investigation under rigid and moving wall assumptions. **2013**, 29, 197-216	18
1997	A data exploration framework for validation and setup of hydrological models. **2013**, 69, 469-477	26
1996	Groundwater flow model of the Pipiripau watershed, Federal District of Brazil. **2013**, 69, 617-631	7
1995	Finite element method solution of the simplified P3 equations for general geometry applications. **2013**, 56, 194-207	8
1994	On the Thermal Load of the Color-Conversion Elements in Phosphor-Based White Light-Emitting Diodes. **2013**, 1, 753-762	32
1993	Confined nematic liquid crystal between two spherical boundaries with planar anchoring. **2013**, 88, 012508	15
1992	How can we deal with moving objects on a fixed mesh?. **2013**, 246, 260-268	3
1991	Frictional mortar contact for finite deformation problems with synthetic contact kinematics. **2013**, 51, 975-998	5
1990	magnum.fe: A micromagnetic finite-element simulation code based on FEniCS. **2013**, 345, 29-35	50
1989	Non-Newtonian deterministic lateral displacement separator: theory and simulations. **2013**, 52, 221-236	21
1988	Numerical solution of coupled problems using code Agros2D. **2013**, 95, 381-408	59
1987	Dynamics of pairs and triplets of particles in a viscoelastic fluid flowing in a cylindrical channel. **2013**, 86, 45-55	23
1986	A micro–meso-model of intra-laminar fracture in fiber-reinforced composites based on a discontinuous Galerkin/cohesive zone method. **2013**, 104, 162-183	48
1985	Numerical simulation of CAD thin structures using the eXtended Finite Element Method and Level Sets. **2013**, 77, 40-58	9
1984	A numerical investigation into the size effect in the transverse crack tension test for mode II delamination. **2013**, 54, 145-152	13

1983	Molecular and subcellular-scale modeling of nucleotide diffusion in the cardiac myofilament lattice. **2013**, 105, 2130-40	20
1982	Distance fields on unstructured grids: Stable interpolation, assumed gradients, collision detection and gap function. **2013**, 259, 77-92	4
1981	Monitoring freshwater salinization in analog transport models by time-lapse electrical resistivity tomography. **2013**, 89, 84-95	28
1980	Combining analytic preconditioner and Fast Multipole Method for the 3-D Helmholtz equation. **2013**, 236, 289-316	40
1979	Validation of an open source framework for the simulation of blood flow in rigid and deformable vessels. **2013**, 29, 1192-213	40
1978	Discontinuous Galerkin method for the computation of acoustic modes in lined flow ducts with rigid splices. **2013**, 332, 3270-3288	11
1977	Stress heterogeneities in earthquake rupture experiments with material contrasts. **2013**, 61, 742-761	8
1976	A Pressure-Based Segregated Solver for Incompressible Flow on Unstructured Grids. **2013**, 64, 460-479	11
1975	Numerical Modeling of Capacitive Effects in HF Multiwinding Transformers—Part II: Identification Using the Finite-Element Method. **2013**, 49, 2021-2024	23
1974	Multiphysics simulation of corona discharge induced ionic wind. **2013**, 114, 233301	42
1973	Shield Design for Enhanced Reader Resolution. **2013**, 49, 3729-3732	1
1972	A fluid structure interaction—EHD model of the lubricating gaps in external gear machines: Formulation and validation. **2013**, 62, 78-90	49
1971	Conforming Finite-Element Methods for Modeling Convection in an Incompressible Rock Matrix. **2013**, 100, 225-246	2
1970	Numerical analysis of the groundwater regime in the western Dead Sea escarpment, Israel + West Bank. **2013**, 69, 571-585	34
1969	High-order fluid–structure interaction in 2D and 3D application to blood flow in arteries. **2013**, 246, 1-9	14
1968	Extension of the natural element method to surface tension and wettability for the simulation of polymer flows at the micro and nano scales. **2013**, 200, 9-16	10
1967	A robust finite element approach for large deformation elastoplastic plane-strain problems. **2013**, 77, 1-15	15
1966	Software design for decoupled parallel meshing of CAD models. **2013**,	0

1965	hAdaptive Stabilized Finite-Element Solver for Calculation of Generalized Aerodynamic Forces. **2013**,	2
1964	Smoothness-Increasing Accuracy-Conserving Filters for Discontinuous Galerkin Solutions over Unstructured Triangular Meshes. **2013**, 35, A212-A230	23
1963	Resonant Fluid Actuator: Modeling, Identification, and Control. **2013**, 21, 852-860	3
1962	Efficient adaptive mesh refinement for MoM-based package-board 3D full-wave extraction. **2013**,	3
1961	Resistivity modelling with topography. **2013**, 194, 1486-1497	25
1960	A wide-band hybrid antenna for use in reverberation chambers. **2013**,	6
1959	Non-conforming meshes in multi-scale thermo-mechanical Finite Element Analysis of semiconductor power devices. **2013**,	6
1958	Study of statistical variability in nanoscale transistors introduced by LER, RDF and MGG. **2013**,	2
1957	Three dimensional numerical study on the efficiency of a core-shell InGaN/GaN multiple quantum well nanowire LED. **2013**,	
1956	A point collocation method for geometrically nonlinear membranes. **2013**, 50, 288-296	4
1955	Geometrical modelling of foam structures using implicit functions. **2013**, 50, 548-555	30
1954	Validation of PML-based models for the evaluation of anchor dissipation in MEMS resonators. **2013**, 37, 256-265	43
1953	Modelling of spontaneous adhesion phenomena in micro-electro-mechanical systems. **2013**, 39, 144-152	29
1952	Quench Considerations and Protection Scheme of a High Field HTS Dipole Insert Coil. **2013**, 23, 4600104-4600104	15
1951	An unstructured direct simulation Monte Carlo methodology with Kinetic-Moment inflow and outflow boundary conditions. **2013**, 233, 148-174	10
1950	Microdomain heterogeneity in 3D affects the mechanics of neonatal cardiac myocyte contraction. **2013**, 12, 95-109	10
1949	Modelling of interfacial mass transfer in microfluidic solvent extraction: part I. Heterogenous transport. **2013**, 14, 197-212	26
1948	Accelerated Macro Basis Functions Analysis of Finite Printed Antenna Arrays Through 2D and 3D Multipole Expansions. **2013**, 61, 707-717	15

1947	Characterizing unusual metal substrates for gap-mode tip-enhanced Raman spectroscopy. **2013**, 44, 227-233	57
1946	Assessment of remeshing and remapping strategies for large deformation elastoplastic Finite Element analysis. **2013**, 114-115, 133-146	14
1945	An experimental and numerical study of the pattern of cracking of concrete due to steel reinforcement corrosion. **2013**, 114, 26-41	34
1944	. **2013**, 88, 643-652	3
1943	Robust untangling of curvilinear meshes. **2013**, 254, 8-26	94
1942	Virtual reality aided visualization of fluid flow simulations with application in medical education and diagnostics. **2013**, 43, 2046-52	12
1941	Effective properties of cell wall layers in bast fiber. **2013**, 79, 309-315	6
1940	High-order B-splines based finite elements for delamination analysis of laminated composites. **2013**, 102, 261-275	68
1939	A stochastic finite element model for the dynamics of globular macromolecules. **2013**, 239, 147-165	12
1938	A Nitsche stabilized finite element method for frictional sliding on embedded interfaces. Part II: Intersecting interfaces. **2013**, 267, 318-341	14
1937	Computation of self-field hysteresis losses in conductors with helicoidal structure using a 2D finite element method. **2013**, 26, 045011	11
1936	A Finite element discretization of the streamfunction formulation of the stationary quasi-geostrophic equations of the ocean. **2013**, 261-262, 105-117	22
1935	Automatic mesh generation and transformation for topology optimization methods. **2013**, 45, 1489-1506	10
1934	Can subject-specific single-fibre electrically evoked auditory brainstem response data be predicted from a model?. **2013**, 35, 926-36	15
1933	Adaptation of an unstructured-mesh, finite-element ocean model to the simulation of ocean circulation beneath ice shelves. **2013**, 67, 39-51	16
1932	A baroclinic discontinuous Galerkin finite element model for coastal flows. **2013**, 61, 1-20	21
1931	Dual-primal domain decomposition method for uncertainty quantification. **2013**, 266, 112-124	13
1930	A programming interface to the Riemannian manifold in a finite element environment. **2013**, 246, 225-233	13

1929	High-order CFD methods: current status and perspective. **2013**, 72, 811-845	493
1928	Micromechanical modeling of coupled viscoelastic–viscoplastic composites based on an incrementally affine formulation. **2013**, 50, 1755-1769	28
1927	On the Coupling of Incompressible Stokes or Navier–Stokes and Darcy Flows Through Porous Media. **2013**, 1-25	3
1926	A high-order accurate discontinuous Galerkin finite element method for laminar low Mach number flows. **2013**, 72, 43-68	13
1925	A priori hyper-reduction method for coupled viscoelastic–viscoplastic composites. **2013**, 119, 95-103	8
1924	Performances of the Partition of Unity Finite Element Method for the analysis of two-dimensional interior sound fields with absorbing materials. **2013**, 332, 1918-1929	31
1923	An unstructured, three-dimensional, shock-fitting solver for hypersonic flows. **2013**, 73, 162-174	48
1922	Automatic 3D Mesh Generation of Multiple Domains for Topology Optimization Methods. **2013**, 243-259	4
1921	Multiscale computational homogenization methods with a gradient enhanced scheme based on the discontinuous Galerkin formulation. **2013**, 260, 63-77	27
1920	Convex combinations for diffusion schemes. **2013**, 246, 11-27	8
1919	Optimization of the multigrid-convergence rate on semi-structured meshes by local Fourier analysis. **2013**, 65, 694-711	13
1918	A PDE Based Approach to Multidomain Partitioning and Quadrilateral Meshing. **2013**, 137-154	13
1917	Universal Matrices for Edge Elements. **2013**, 61, 2275-2281	
1916	Three dimensional numerical study on the efficiency of a core-shell InGaN/GaN multiple quantum well nanowire light-emitting diodes. **2013**, 113, 183104	24
1915	Adaptive cross approximation of tensors arising in the discretization of boundary integral operator shape derivatives. **2013**, 37, 60-67	3
1914	Discontinuous Galerkin unsteady discrete adjoint method for real-time efficient tsunami simulations. **2013**, 232, 416-430	13
1913	Geometrical validity of curvilinear finite elements. **2013**, 233, 359-372	59
1912	A two-scale Weibull approach to the failure of porous ceramic structures made by robocasting: possibilities and limits. **2013**, 33, 679-688	23

1911	Vertex-centroid finite volume scheme on tetrahedral grids for conservation laws. **2013**, 65, 58-74	7
1910	On modeling cohesive ridge keel punch through tests with a combined finite-discrete element method. **2013**, 85, 191-205	26
1909	A non-periodic two scale asymptotic method to take account of rough topographies for 2-D elastic wave propagation. **2013**, 192, 163-189	16
1908	A domain-specific embedded language in C++ for lowest-order discretizations of diffusive problems on general meshes. **2013**, 53, 111-152	5
1907	Topology optimization in Bernoulli free boundary problems. **2013**, 80, 173-188	3
1906	Cardiovascular and lung mesh generation based on centerlines. **2013**, 29, 665-82	13
1905	Ductile fracture initiated by interface nucleation in two-phase elastoplastic systems. **2013**, 102, 77-100	28
1904	Determination of the spring constants of the higher flexural modes of microcantilever sensors. **2013**, 24, 065704	6
1903	Discontinuous Galerkin methods for elliptic partial differential equations with random coefficients. **2013**, 90, 2477-2490	8
1902	Three-Dimensional Parametric Data Exchange for Curved Steel Bridges. **2013**, 2331, 27-34	10
1901	. **2013**,	
1900	Experimental Investigation Of An Aerodynamic Flow Of Geometrical Models In Hypersonic Aerodynamic Shock Tube. **2013**,	
1899	Flow noise prediction of confined flows using synthetic turbulence and linearized Euler equations in a hybrid methodology. **2013**,	1
1898	The impact of the non-linearity of the radiant flux on the thermal load of the color conversion elements in phosphor converted LEDs under different current driving schemes. **2013**, 21 Suppl 3, A439-49	13
1897	Progress Towards an Arbitrarily High-Order, Unstructured, Free-Wake Panel Solver. **2013**,	1
1896	Scalable domain decomposition preconditioners for heterogeneous elliptic problems. **2013**,	15
1895	Free Tools and Strategies for the Generation of 3D Finite Element Meshes: Modeling of the Cardiac Structures. **2013**, 2013, 540571	2
1894	Polarizability tensor retrieval for magnetic and plasmonic antenna design. **2013**, 15, 073023	43

1893	Influence of high-order mechanics on simulation of glacier response to climate change: insights from Haig Glacier, Canadian Rocky Mountains. **2013**, 7, 1527-1541		28
1892	Unstructured Grids and the Multigroup Neutron Diffusion Equation. **2013**, 2013, 1-26		6
1891	Analytical Formulae for Potential Integrals on Triangles. **2013**, 80,		6
1890	Level set methods for modelling field evaporation in atom probe. **2013**, 19, 1709-17		20
1889	On using the levelling of the free surface of a Newtonian fluid to measure viscosity and Navier slip length. **2013**, 469, 20130457		3
1888	A new model of fluid flow to determine pressure balance characteristics. **2013**, 50, 153-157		3
1887	Multiphase flow modelling of volcanic ash particle settling in water using adaptive unstructured meshes. **2013**, 192, 647-665		13
1886	Issues in Communication Heterogeneity for Message-Passing Concurrent Computing. **2013**,		2
1885	Fractional-Step Schemes for the Coupling of Distributed and Lumped Models in Hemodynamics. **2013**, 35, B551-B575		12
1884	Consistent Volumetric Discretizations Inside Self-Intersecting Surfaces. **2013**, 32, 147-156		12
1883	A general degree hybrid equilibrium finite element for Kirchhoff plates. *International Journal for Numerical Methods in Engineering*, **2013**, 94, 331-354	2.4	8
1882	A Multiscale Method for Optical Responses of Nanostructures. **2013**, 73, 741-756		4
1881	Iterative projection on critical states for reliability-based design optimization. **2013**, 45, 577-590		6
1880	Thermoelastic investigation of a quartz tuning fork used in infrared spectroscopy. **2013**, 103, 201111		6
1879	An $H_mathsf{div}$-Based Mixed Quasi-reversibility Method for Solving Elliptic Cauchy Problems. **2013**, 51, 2123-2148		26
1878	Viscoelastic interaction between intraocular microrobots and vitreous humor: a finite element approach. **2013**, 2013, 4937-40		1
1877	Automatic merging of tetrahedral meshes. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 1191-1215	2.4	5
1876	FEM electrode refinement for electrical impedance tomography. **2013**, 2013, 6429-32		22

1875	A frontal Delaunay quad mesh generator using the L∞norm. *International Journal for Numerical Methods in Engineering*, **2013**, 94, 494-512	2.4	27
1874	An Additive Manufacturing resource process model for product family design. **2013**,		1
1873	Optimized Explicit Runge--Kutta Schemes for the Spectral Difference Method Applied to Wave Propagation Problems. **2013**, 35, A957-A986		23
1872	Fully Eulerian finite element approximation of a fluid-structure interaction problem in cardiac cells. *International Journal for Numerical Methods in Engineering*, **2013**, 96, 712-738	2.4	16
1871	Homology and Cohomology Computation in Finite Element Modeling. **2013**, 35, B1195-B1214		29
1870	A finite element-based level set method for fluid–elastic solid interaction with surface tension. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 919-941	2.4	14
1869	Rapid Computation of Harmonic Eddy-Current Losses in High-Speed Solid-Rotor Induction Machines. **2013**, 28, 782-790		15
1868	Computationally efficient simulation of electrical activity at cell membranes interacting with self-generated and externally imposed electric fields. **2013**, 10, 026019		39
1867	Simulation of enhanced deposition due to magnetic field alignment of ellipsoidal particles in a lung bifurcation. **2013**, 26, 31-40		7
1866	A STUDY ON CHARACTERISTICS OF TSUNAMI GENERATED BY SPLAY FAULT RUPTURING. **2013**, 69, I_750-I_757		
1865	Reservoir Modeling for Flow Simulation Using Surfaces, Adaptive Unstructured Meshes and Control-Volume-Finite-Element Methods. **2013**,		16
1864	Kinetic Energy Preserving and Entropy Stable Finite Volume Schemes for Compressible Euler and Navier-Stokes Equations. **2013**, 14, 1252-1286		108
1863	Evaluation of shielding effectiveness of composite wall with a time domain discontinuous Galerkin method. **2013**, 64, 24508		3
1862	Verified computations to semilinear elliptic boundary value problems on arbitrary polygonal domains. **2013**, 4, 34-61		19
1861	FULL-VECTORIAL PARALLEL FINITE-ELEMENT CONTRAST SOURCE INVERSION METHOD. **2013**, 142, 463-483		40
1860	3D Mixed Element Discontinuous Galerkin with Shock Capturing. **2013**,		11
1859	A General Approach for Kinetic Modeling of Solid-Gas Reactions at Reactor Scale: Application to Kaolinite Dehydroxylation. **2013**, 68, 1039-1048		13
1858	Quantitative study of the effect of tissue microstructure on contraction in a computational model of rat left ventricle. **2014**, 9, e92792		15

1857	Simulation of Cold Nitrogen Flows in Nanonozzles with Atmospheric Inlet Pressures. **2014**,	
1856	Influence of anisotropy on velocity and age distribution at Scharffenbergbotnen blue ice area. **2014**, 8, 607-621	8
1855	Damage and Lifetime Modeling for Structure Computations. **2014**, 465-519	4
1854	Visualizing skin effects in conductors with MRI: (7)Li MRI experiments and calculations. **2014**, 245, 143-9	60
1853	A mixed isostatic 16 dof quadrilateral membrane element with drilling rotations, based on Airy stresses. **2014**, 89, 52-66	21
1852	A fully-coupled discontinuous Galerkin method for two-phase flow in porous media with discontinuous capillary pressure. **2014**, 18, 779-796	59
1851	Studying radon exhalation rates variability from phosphogypsum piles in the SW of Spain. **2014**, 280, 464-71	18
1850	Symmetric global partition polynomials for reproducing kernel elements. **2014**, 54, 1237-1253	
1849	A new method for the generation of arbitrarily shaped 3D random polycrystalline domains. **2014**, 54, 1447-1460	15
1848	Higher Order Multigrid Algorithms for a Discontinuous Galerkin RANS Solver. **2014**,	5
1847	Computer simulation of slightly rarefied gas flows driven by significant temperature variations and their continuum limit. **2014**, 28, 573-587	2
1846	The Partition of Unity Finite Element Method for the simulation of waves in air and poroelastic media. **2014**, 135, 724-33	20
1845	The Effect of the Microstructure and Defects on Crack Initiation in 316L Stainless Steel under Multiaxial High Cycle Fatigue. **2014**, 891-892, 815-820	2
1844	Resolution of the Generalized Eigenvalue Problem in the Neutron Diffusion Equation Discretized by the Finite Volume Method. **2014**, 2014, 1-15	8
1843	Yeast mating and image-based quantification of spatial pattern formation. **2014**, 10, e1003690	19
1842	GDCSim. **2014**, 24, 1-27	15
1841	How does multiscale modelling and inclusion of realistic palaeobathymetry affect numerical simulation of the Storegga Slide tsunami?. **2014**, 83, 11-25	33
1840	Where Open Source FEA Fits in the CAE Ecosystem and What to Know Before Adopting. **2014**,	

1839	Modeling Pedestrian Dynamics on Triangular Grids. **2014**, 2, 327-335		4
1838	An open source domain decomposition solver for time-harmonic electromagnetic wave problems. **2014**,		3
1837	Finding the Force□Consistent Particle Seeding for Satellite Aerodynamics. **2014**,		
1836	A Comparative Study of Discontinuous High Order Methods for Compressible Flows. **2014**,		0
1835	A fast MoM code for finite arrays. **2014**,		
1834	A bilayer model of human atria: mathematical background, construction, and assessment. **2014**, 16 Suppl 4, iv21-iv29		46
1833	COARSE MESH FINITE DIFFERENCE ACCELERATION OF DISCRETE ORDINATE NEUTRON TRANSPORT CALCULATION EMPLOYING DISCONTINUOUS FINITE ELEMENT METHOD. **2014**, 46, 783-796		13
1832	Enforcing symmetries in boundary element formulation of plasmonic and second-harmonic scattering problems. **2014**, 31, 2821-32		4
1831	Microrheology close to an equilibrium phase transition. **2014**, 140, 144901		7
1830	The optimization study of textured a-Si:H solar cells. **2014**, 6, 023111		8
1829	Towards the Integration of Topology Optimization into the CAD Process. **2014**, 11, 120-140		11
1828	On structural computations until fracture based on an anisotropic and unilateral damage theory. **2014**, 23, 483-506		11
1827	Thermal Investigation of Permanent-Magnet Synchronous Motor for Aerospace Applications. **2014**, 61, 4404-4411		50
1826	Revisiting Optimal Delaunay Triangulation for 3D Graded Mesh Generation. **2014**, 36, A930-A954		16
1825	Electroviscous resistance of nanofluidic bends. **2014**, 90, 043008		
1824	Classical and all-floating FETI methods for the simulation of arterial tissues. *International Journal for Numerical Methods in Engineering*, **2014**, 99, 290-312	2.4	14
1823	Shear velocity model for the Kyrgyz Tien Shan from joint inversion of receiver function and surface wave data. **2014**, 199, 480-498		23
1822	Modified extended BDF scheme for the discontinuous Galerkin solution of unsteady compressible flows. **2014**, 76, 549-574		22

1821	The influence of random indium alloy fluctuations in indium gallium nitride quantum wells on the device behavior. **2014**, 116, 113104		106
1820	Sheath-induced distortions in particle distributions near enhanced polar outflow probe particle sensors. **2014**, 21, 072902		2
1819	Accelerating unstructured finite volume computations on field-programmable gate arrays. **2014**, 26, 615-643		4
1818	Energetic BEM–FEM coupling for wave propagation in 3D multidomains. *International Journal for Numerical Methods in Engineering*, **2014**, 97, 377-394	2.4	10
1817	Numerical approximation of elliptic interface problems via isoparametric finite element methods. **2014**, 68, 1945-1962		3
1816	Optimal Error Estimates of a Linearized Backward Euler FEM for the Landau--Lifshitz Equation. **2014**, 52, 2574-2593		18
1815	Junction modeling for piecewise non-homogeneous geometries involving arbitrary materials. **2014**,		2
1814	Two-scale computational modelling of water flow in unsaturated soils containing irregular-shaped inclusions. *International Journal for Numerical Methods in Engineering*, **2014**, 98, 157-173	2.4	12
1813	Discontinuous Galerkin/extrinsic cohesive zone modeling: Implementation caveats and applications in computational fracture mechanics. **2014**, 128, 37-68		64
1812	A non-linear residual distribution scheme for real-gas computations. **2014**, 102, 148-169		3
1811	The use of tetrahedral mesh geometries in Monte Carlo simulation of applicator based brachytherapy dose distributions. **2014**, 59, 5921-35		5
1810	Normal forces exerted upon a long cylinder oscillating in an axial flow. **2014**, 752, 649-669		14
1809	Heat transfer from horizontal cylinder with fins embedded in PCM. **2014**,		3
1808	A Comparison of Techniques for the Reconstruction of Leaf Surfaces from Scanned Data. **2014**, 36, B969-B988		11
1807	COMPUTATIONAL EFFICIENCY OF A MODIFIED SCATTERING KERNEL FOR FULL-COUPLED PHOTON-ELECTRON TRANSPORT PARALLEL COMPUTING WITH UNSTRUCTURED TETRAHEDRAL MESHES. **2014**, 46, 263-272		2
1806	Metric field construction for anisotropic mesh adaptation with application to blood flow simulations. **2014**, 30, 1326-46		2
1805	Encyclopedia of Computational Neuroscience. **2014**, 1-29		1
1804	Digital Material Representation and Testing of Metal Foams. **2014**, 553, 54-59		1

1803	A Novel Fast Remesh-Free Mesh Deformation Method and Its Application to Optimal Design of Electromagnetic Devices. **2014**, 50, 1-4	4
1802	Coupling transformer with a virtual air gap for the protection of dynamic voltage restorers. **2014**,	3
1801	Multiscale coupling of transcranial direct current stimulation to neuron electrodynamics: modeling the influence of the transcranial electric field on neuronal depolarization. **2014**, 2014, 360179	9
1800	Importance of basal processes in simulations of a surging Svalbard outlet glacier. **2014**, 8, 1393-1405	19
1799	Nonlinear Vibrations of 3D Laminated Composite Beams. **2014**, 2014, 1-14	4
1798	A comprehensive discussion on colour conversion element design of phosphor converted LEDs. **2014**, 1,	4
1797	Electroviscous flow through nanofluidic junctions. **2014**, 38, 4215-4225	2
1796	Effective properties of nodular cast-iron: A multi-scale computational approach. **2014**, 82, 378-390	17
1795	Comparison of several staggered atomistic-to-continuum concurrent coupling strategies. **2014**, 277, 260-280	13
1794	Simulation of flow in compound open-channel using a discontinuous Galerkin finite-element method with Smagorinsky turbulence closure. **2014**, 8, 396-409	6
1793	Circular braiding take-up speed generation using inverse kinematics. **2014**, 64, 147-158	37
1792	Heterogenous void growth revealed by in situ 3-D X-ray microtomography using automatic cavity tracking. **2014**, 63, 130-139	39
1791	Identification of artery wall stiffness: in vitro validation and in vivo results of a data assimilation procedure applied to a 3D fluid-structure interaction model. **2014**, 47, 1027-34	24
1790	Comparing orthogonal force and unidirectional strain component processing for tool condition monitoring. **2014**, 25, 473-487	13
1789	Modelling Discharge Rates and Ground Settlement Induced by Tunnel Excavation. **2014**, 47, 869-884	15
1788	Optimal parametrizations for surface remeshing. **2014**, 30, 383-402	16
1787	Geometrical validity of high-order triangular finite elements. **2014**, 30, 375-382	9
1786	TUM.GeoFrame: automated high-order hexahedral mesh generation for shell-like structures. **2014**, 30, 41-56	9

1785	Recovering the observable part of the initial data of an infinite-dimensional linear system with skew-adjoint generator. **2014**, 26, 435-462	10
1784	Electrical resistivity tomography as monitoring tool for unsaturated zone transport: an example of preferential transport of deicing chemicals. **2014**, 21, 8964-80	9
1783	Splitting schemes for poroelasticity and thermoelasticity problems. **2014**, 67, 2185-2198	28
1782	Consistent remeshing and transfer for a three dimensional enriched mixed formulation of plasticity and non-local damage. **2014**, 53, 625-639	7
1781	Multiscale and multimodel simulation of Bloch-point dynamics. **2014**, 89,	39
1780	A family of Piola–Kirchhoff hybrid stress finite elements for two-dimensional linear elasticity. **2014**, 85, 33-49	13
1779	Discontinuous Galerkin finite element discretization of a strongly anisotropic diffusion operator. **2014**, 75, 365-384	2
1778	A 3D moving mesh Finite Element Method for two-phase flows. **2014**, 270, 366-377	17
1777	Vectorized simulation of groundwater flow and streamline transport. **2014**, 52, 207-221	14
1776	Rapid development and adjoining of transient finite element models. **2014**, 276, 95-121	6
1775	Computational homogenization of cellular materials. **2014**, 51, 2183-2203	38
1774	An efficient parallel implementation of explicit multirate Runge–Kutta schemes for discontinuous Galerkin computations. **2014**, 256, 135-160	25
1773	Numerical model for mechanical behavior of lightweight concrete and for the prediction of local stress concentration. **2014**, 59, 180-187	4
1772	3-D Modeling of Thin Sheets in the Discontinuous Galerkin Method for Transient Scattering Analysis. **2014**, 50, 493-496	3
1771	Electrokinetic flow in parallel channels: Circuit modelling for microfluidics and membranes. **2014**, 440, 63-73	8
1770	Predictions of inter-granular cracking and dimensional changes of irradiated polycrystalline graphite under plane strain. **2014**, 87, 129-137	13
1769	Discretization error for the Discrete Kirchhoff plate finite element approximation. **2014**, 269, 415-436	11
1768	Evaluation of Electromagnetic Fields in Human Body Exposed to Wireless Inductive Charging System. **2014**, 50, 1037-1040	44

1767	Modeling Rotation in Electrical Machines. **2014**, 50, 1-10	4
1766	A domain decomposition method of stochastic PDEs: An iterative solution techniques using a two-level scalable preconditioner. **2014**, 257, 298-317	17
1765	Transient modeling of fiber spinning with filament pull-out. **2014**, 208-209, 72-87	4
1764	An orthotropic active–strain model for the myocardium mechanics and its numerical approximation. **2014**, 48, 83-96	28
1763	Fabrication, modelling and evaluation of microstructured materials in a digital framework. **2014**, 81, 89-97	10
1762	A numerical analysis of solid–liquid phase change heat transfer around a horizontal cylinder. **2014**, 38, 1101-1110	29
1761	Scaling strength distributions in quasi-brittle materials from micro- to macro-scales: A computational approach to modeling Nature-inspired structural ceramics. **2014**, 68, 93-106	20
1760	A computational library for multiscale modeling of material failure. **2014**, 53, 1047-1071	307
1759	Tidal turbine array optimisation using the adjoint approach. **2014**, 63, 658-673	118
1758	Model based investigation of Ar+ ion damage in DC magnetron sputtering. **2014**, 241, 50-53	18
1757	The role of dendritic spine morphology in the compartmentalization and delivery of surface receptors. **2014**, 36, 483-97	10
1756	3D PIC-MC simulation of anode effects in dual magnetron discharges. **2014**, 241, 30-32	8
1755	Split Formulation of the Charge and Current Integral Equations for Arbitrarily Shaped Dielectrics. **2014**, 62, 302-310	3
1754	Stationary plasmon-soliton waves in metal-dielectric nonlinear planar structures: Modeling and properties. **2014**, 89,	22
1753	An Efficient Analysis of Power/Ground Planes With Inhomogeneous Substrates Using the Contour Integral Method. **2014**, 56, 980-989	13
1752	High-order computational fluid dynamics tools for aircraft design. **2014**, 372, 20130318	20
1751	Reconstructing the 3D shapes of droplets in glass microchannels with application to Bretherton's problem. **2014**, 55, 1	4
1750	Predictive-Quality Surface Reaction Chemistry in Real Reactor Models: Integrating First-Principles Kinetic Monte Carlo Simulations into Computational Fluid Dynamics. **2014**, 4, 4081-4092	62

1749 Numerical Simulation of Ionized Rocket Plumes. **2014**, 28, 218-225 9

1748 A nonlinear dynamic finite element approach for simulating muscular hydrostats. **2014**, 17, 917-31 11

1747 Numerical Simulation of PCM melting over a wavy surface. **2014**, 24, 1660-1669 12

1746 A finite-element reciprocity solution for EEG forward modeling with realistic individual head models. **2014**, 103, 542-551 21

1745 Using simple shape three-dimensional rigid inclusions to enhance porous layer absorption. **2014**, 136, 1139 57

1744 Reducing Modeling Domain to Speed-Up Quench Simulations of HTS Coils. **2014**, 24, 1-5 5

1743 Fast convolution quadrature for the wave equation in three dimensions. **2014**, 279, 103-126 19

1742 Modeling digits. Digit patterning is controlled by a Bmp-Sox9-Wnt Turing network modulated by morphogen gradients. **2014**, 345, 566-70 301

1741 Modeling nonlinear elastic solid with correlated lattice bond cell for dynamic fracture simulation. **2014**, 279, 325-347 29

1740 Resonant dynamics of arbitrarily shaped meta-atoms. **2014**, 90, 30

1739 3D CFD simulation of air cooled condenser-I: Natural convection over a circular cylinder. **2014**, 78, 1265-1283 22

1738 An advanced numerical method for predicting effective elastic properties of heterogeneous composite materials. **2014**, 117, 114-123 18

1737 Elastic damage to crack transition in a coupled non-local implicit discontinuous Galerkin/extrinsic cohesive law framework. **2014**, 279, 379-409 22

1736 Hierarchical interface-enriched finite element method: An automated technique for mesh-independent simulations. **2014**, 275, 41-52 32

1735 Up to sixth-order accurate A-stable implicit schemes applied to the Discontinuous Galerkin discretized Navier–Stokes equations. **2014**, 276, 136-162 19

1734 A method for computing curved meshes via the linear elasticity analogy, application to fluid dynamics problems. **2014**, 76, 246-266 25

1733 Finite element model with imposed slip surfaces for earth mass safety evaluation. **2014**, 21, 3627-3638

1732 A continuum model for platelet plug formation, growth and deformation. **2014**, 30, 1541-57 6

1731	Computational modelling of crack-induced permeability evolution in granite with dilatant cracks. **2014**, 70, 593-604	27
1730	An alternative formulation for the fast multipole method. **2014**, 68, 1191-1198	
1729	Anisotropic adaptive nearly body-fitted meshes for CFD. **2014**, 30, 517-533	3
1728	Numerical simulations of linear viscoelasticity of monodisperse emulsions of Newtonian drops in a Newtonian fluid from dilute to concentrated regime. **2014**, 53, 401-416	4
1727	Partitioned and ImplicitExplicit General Linear Methods for Ordinary Differential Equations. **2014**, 61, 119-144	38
1726	Stationary chemical gradients for concentration gradient-based separation and focusing in nanofluidic channels. **2014**, 30, 5337-48	21
1725	A frontal approach to hex-dominant mesh generation. **2014**, 1, 8	28
1724	Hemodynamics in the cephalic arch of a brachiocephalic fistula. **2014**, 36, 822-30	24
1723	A Design Proposal for Optimal Transcutaneous Energy Transmitters. **2014**, 50, 997-1000	2
1722	A geometry-based adaptive unstructured grid generation algorithm for complex geological media. **2014**, 68, 31-37	11
1721	Efficient Solenoidal Discretization of the Volume EFIE for Electromagnetic Scattering From Dielectric Objects. **2014**, 62, 1475-1478	8
1720	Parallel simulation of groundwater non-point source pollution using algebraic multigrid preconditioners. **2014**, 18, 851-867	11
1719	Numerical modeling of zero-offset laboratory data in a strong topographic environment: results for a spectral-element method and a discretized Kirchhoff integral method. **2014**, 27, 391-399	5
1718	Simulation of grinding processes using finite element analysis and geometric simulation of individual grains. **2014**, 8, 345-353	12
1717	Sintering at Particle Scale: An Eulerian Computing Framework to Deal with Strong Topological and Material Discontinuities. **2014**, 21, 141-187	12
1716	Modelling anisotropic water transport in polymer composite reinforced with aligned triangular bars. **2014**, 37, 101-106	3
1715	3D modeling and inversion of the electrical resistivity tomography using steel cased boreholes as long electrodes. **2014**, 109, 292-300	10
1714	Towards superlattices: Lateral bipolar multibarriers in graphene. **2014**, 89,	18

1713	A new three dimensional approach to numerically model hydraulic fracturing process. **2014**, 124, 451-467	56
1712	FSI analysis of the blood flow and geometrical characteristics in the thoracic aorta. **2014**, 54, 1035-1045	76
1711	Micromechanical study of the loading path effect in high cycle fatigue. **2014**, 59, 64-75	16
1710	A Runge Kutta Discontinuous Galerkin approach to solve reactive flows on conforming hybrid grids: the parabolic and source operators. **2014**, 95, 98-115	1
1709	Image analysis of polycrystalline solar cells and modelling of intergranular and transgranular cracking. **2014**, 34, 2713-2722	18
1708	Sensitivity analysis of the non-destructive evaluation of micro-cracks using GMR sensors. **2014**, 64, 21-29	13
1707	The meshing framework ViennaMesh for finite element applications. **2014**, 270, 166-177	7
1706	Numerical optimization of baffles for sputtering optical precision filters. **2014**, 241, 45-49	7
1705	Acoustic isogeometric boundary element analysis. **2014**, 269, 265-290	143
1704	Cool materials impact at district scale Coupling building energy and microclimate models. **2014**, 13, 254-266	50
1703	Mixed-variational formulation for phononic band-structure calculation of arbitrary unit cells. **2014**, 74, 67-75	14
1702	An asymptotic approach to the adhesion of thin stiff films. **2014**, 58, 24-35	23
1701	New laws for the tension/compression properties of Voronoi closed-cell polymer foams in relation to their microstructure. **2014**, 45, 110-122	30
1700	A framework for integrated design of algorithmic architectural forms. **2014**, 72, 109-118	7
1699	Assessment of spurious mixing in adaptive mesh simulations of the two-dimensional lock-exchange. **2014**, 73, 30-44	11
1698	Modeling matrix cracking in composite rotor blades within VABS framework. **2014**, 110, 62-76	23
1697	Switchable spin-current source controlled by magnetic domain walls. **2014**, 14, 4016-22	15
1696	Numerical simulation of coupled heat, liquid water and water vapor in soils for heat dissipation of underground electrical power cables. **2014**, 70, 510-523	54

1695	Domain decomposition based finite element verification in linear framework. **2014**, 88, 90-96	1
1694	A Zoning System and Some Examples. **2014**, 303-327	
1693	. **2014**, 24, 78-110	204
1692	Isogeometric analysis suitable trivariate NURBS representation of composite panels with a new offset algorithm. **2014**, 55, 49-63	27
1691	Development of discrete ordinates code supporting unstructured tetrahedral mesh and applied in neutronics analysis for the Korea Helium Cooled Ceramic Reflector Test Blanket Module. **2014**, 89, 1172-1176	6
1690	An open source program to generate zero-thickness cohesive interface elements. **2014**, 74, 27-39	53
1689	Side-branch resonators modelling with Green?s function methods. **2014**, 333, 4458-4472	6
1688	Micromechanical investigation of the influence of defects in high cycle fatigue. **2014**, 67, 159-172	15
1687	Impact of extinction coefficient of phosphor on thermal load of color conversion elements of phosphor converted LEDs. **2014**, 32, 201-206	15
1686	A numerical study of the influence of aspect ratio and gap on 3D galloping of square prisms. **2014**,	
1685	A Stabilized Finite Element Method for Modified Poisson-Nernst-Planck Equations to Determine Ion Flow Through a Nanopore. **2014**, 15,	29
1684	Comparison of grid-based methods for raytracing on unstructured meshes. **2014**,	1
1683	A Nominally Second-Order Cell-Centered Finite Volume Scheme for Simulating Three-Dimensional Anisotropic Diffusion Equations on Unstructured Grids. **2014**, 16, 841-891	1
1682	An algorithm of identifying parameters satisfying a sufficient condition of Plum's Newton-Kantorovich like existence theorem for nonlinear operator equations. **2014**, 5, 64-79	
1681	Modelling and Simulation of Asphalt. **2014**, 14, 249-250	1
1680	Energy- and enstrophy-conserving schemes for the shallow-water equations, based on mimetic finite elements. **2014**, 140, 2223-2234	31
1679	Synthetic jet actuation for load control. **2014**, 555, 012026	3
1678	Characterization of geothermally relevant structures at the top of crystalline basement in Switzerland by filters and gravity forward modelling. **2014**, 199, 226-241	13

1677	Curvature-adapted Remeshing of CAD Surfaces. **2014**, 82, 253-265	12
1676	Numerical simulations of steady flow past two cylinders in staggered arrangements. **2015**, 765, 114-149	38
1675	Blood flow in the choriocapillaris. **2015**, 774, 37-66	11
1674	Simulation of Space Charge Effects in Electron Optical System Based on the Calculations of Current Density. **2015**, 21, 246-251	0
1673	Modelling the micro-structure of non-uniform conductive non-woven fabrics: Determination of sheet resistance. **2015**,	2
1672	Multiphase flow simulation through porous media with explicitly resolved fractures. **2015**, 15, 592-607	22
1671	Deflation Techniques for Finding Distinct Solutions of Nonlinear Partial Differential Equations. **2015**, 37, A2026-A2045	57
1670	IM3D: A parallel Monte Carlo code for efficient simulations of primary radiation displacements and damage in 3D geometry. **2015**, 5, 18130	36
1669	Supersonic Air Flows Around Some Geometrical Primitives. **2015**,	4
1668	Imaging tropical peatlands in Indonesia using ground penetrating radar (GPR) and electrical resistivity imaging (ERI): implications for carbon stock estimates and peat soil characterization. **2015**,	3
1667	Solving the hypersingular boundary integral equation for the Burton and Miller formulation. **2015**, 138, 3332-40	5
1666	Tailoring superelasticity of soft magnetic materials. **2015**, 107, 171903	36
1665	Three-Dimensional Flow Optimization of a Nozzle with a Continuous Adjoint. **2015**, 16, 151-156	
1664	A Two-Level Multithreaded Delaunay Kernel. **2015**, 124, 6-17	9
1663	Characterization of water content dynamics and tracer breakthrough by 3-D electrical resistivity tomography (ERT) under transient unsaturated conditions. **2015**, 51, 97-124	12
1662	Dynamics of thermally induced ice streams simulated with a higher-order flow model. **2015**, 120, 1743-1770	15
1661	Modelling the behaviour of microbulk Micromegas in xenon/trimethylamine gas. **2015**, 799, 137-146	11
1660	Minimization of vortex induced vibrations using Surrogate Based Optimization. **2015**, 52, 717-735	7

1659	Effect of inclined wavy surface on heat transfer inside a rectangular cavity: Solar applications. **2015**,		1
1658	Three-dimensional numerical simulation by upscaling of gas migration through engineered and geological barriers for a deep repository for radioactive waste. **2015**, 415, 123-141		4
1657	New finite element developments for the full field modeling of microstructural evolutions using the level-set method. **2015**, 109, 388-398		40
1656	Heat transfer inside cavities heated by discrete sources: Solar systems. **2015**,		
1655	A Parallel Device Simulator Based on Finite Element Method. **2015**,		3
1654	Brittle and ductile failure of rocks: Embedded discontinuity approach for representing mode I and mode II failure mechanisms. *International Journal for Numerical Methods in Engineering*, **2015**, 102, 1507-1526	2.4	33
1653	Monitoring of a geothermal reservoir by hybrid gravimetry; feasibility study applied to the Soultz-sous-Forêts and Rittershoffen sites in the Rhine graben. **2015**, 3,		15
1652	Finite element and finite volume-element simulation of pseudo-ECGs and cardiac alternans. **2015**, 38, 1046-1058		10
1651	Quasi-local multitrace boundary integral formulations. **2015**, 31, 2043-2062		2
1650	Client-server architecture for pre and post-processing of real problems involving two-dimensional generalized coordinates. **2015**, 11, 226-245		1
1649	Influence of the microstructure and voids on the high-cycle fatigue strength of 316L stainless steel under multiaxial loading. **2015**, 38, 1087-1104		16
1648	Influence of cell shape, inhomogeneities and diffusion barriers in cell polarization models. **2015**, 12, 066014		31
1647	Locking-free discontinuous finite elements for the upper bound yield design of thick plates. *International Journal for Numerical Methods in Engineering*, **2015**, 103, 894-913	2.4	11
1646	An adaptive interface-enriched generalized FEM for the treatment of problems with curved interfaces. *International Journal for Numerical Methods in Engineering*, **2015**, 102, 1352-1370	2.4	15
1645	Numerical Solution of Transonic Wet Steam Flow in Blade-to-Blade Cascade with Non-equilibrium Condensation and Real Thermodynamics. **2015**, 92, 02025		1
1644	Thermo-Mechanical Simulations of Rock Behavior in Underground Coal Gasification Show Negligible Impact of Temperature-Dependent Parameters on Permeability Changes. **2015**, 8, 5800-5827		38
1643	Theory and Application of Magnetic Flux Leakage Pipeline Detection. **2015**, 15, 31036-55		152
1642	Imaging tropical peatlands in Indonesia using ground-penetrating radar (GPR) and electrical resistivity imaging (ERI): implications for carbon stock estimates and peat soil characterization. **2015**, 12, 2995-3007		47

1641	The Effects of the Treatment of the Periodic Boundary Condition in TRIAINA Codes with a Pressure Tube Creep Problem. **2015**, 2015, 1-6	
1640	Preliminary Study on Applying Discrete Ordinates Code Supporting Unstructured Tetrahedral Mesh to the 40-Degree Toroidal Segment ITER Model. **2015**, 68, 652-656	4
1639	Near-subsurface imaging in an absorbing embedding medium with a multistatic/single frequency scanner. **2015**, 13, 211-218	4
1638	GO2OGS 1.0: a versatile workflow to integrate complex geological information with fault data into numerical simulation models. **2015**, 8, 3681-3694	15
1637	THE TIME-HARMONIC DISCONTINUOUS GALERKIN METHOD AS A ROBUST FORWARD SOLVER FOR MICROWAVE IMAGING APPLICATIONS. **2015**, 154, 1-21	9
1636	Numerical simulations and observations of the role of katabatic winds in the creation and maintenance of Scharffenbergbotnen blue ice area, Antarctica. **2015**, 9, 1415-1426	2
1635	A Script-Based, Parameterized Finite Element Mesh for Design and NDE on a GPU. **2015**, 32, 94-103	7
1634	On the role of fibril mechanics in the work of separation of fibrillating interfaces. **2015**, 88, 1-11	8
1633	Microfluidic switching devices showing controllable hysteresis. **2015**,	
1632	A 2-D enlarged cell technique (ECT) for elastic wave modelling on a curved free surface. **2015**, 201, 475-485	5
1631	Cassiopee: A CFD pre- and post-processing tool. **2015**, 45, 272-283	45
1630	Finite Element Mesh Adaptation Strategy From Residual and Hierarchical Error Estimators in Eddy Current Problems. **2015**, 51, 1-4	3
1629	Implementation of a Fuzzy Logic Controller in a FEM Code to Model a Magnetic Suspension Mechanism. **2015**, 51, 1-4	0
1628	A Finite Element Simulation Tool for Predicting Hysteresis Losses in Superconductors Using an H-Oriented Formulation with Cohomology Basis Functions. **2015**, 28, 2345-2354	13
1627	A closer look to the mechanical behavior of the oxide layer in concrete reinforcement corrosion. **2015**, 62, 256-268	18
1626	A Methodology Based on Mesh Morphing Algorithm and Improved Tabu Algorithm for Non-linear Inverse Scattering. **2015**, 51, 1-4	2
1625	Eddy Currents and Non-Conforming Sliding Interfaces for Motion in 3-D Finite Element Analysis of Electrical Machines. **2015**, 51, 1-4	3
1624	ICEEM07: Three-Dimensional Flow Optimization of a Pneumatic Pulsator Nozzle with a Continuous Adjoint. **2015**, 16, 3-9	

1623	Influence of left atrial geometry on rotor core trajectories in a model of atrial fibrillation. **2015**,	2
1622	Simulation of Impedance Spectra for Core‐Shell Grain Structures Using Finite Element Modeling. **2015**, 98, 1925-1931	17
1621	A Microstructure Based Model for the Mechanical Behavior of Multiphase Steels. **2015**, 651-653, 975-980	7
1620	Geometrical validity of curvilinear pyramidal finite elements. **2015**, 299, 124-129	4
1619	A Novel Portable Absolute Transient Hot-Wire Instrument for the Measurement of the Thermal Conductivity of Solids. **2015**, 36, 3083-3105	17
1618	. **2015**, 25, 1-5	7
1617	A Calderón multiplicative preconditioner for the electromagnetic Poincaré‐Steklov operator of a heterogeneous domain with scattering applications. **2015**, 303, 355-371	8
1616	Monitoring an Advection-Diffusion Process Using Aerial Mobile Sensors. **2015**, 03, 221-238	9
1615	Time dependent scattering from a grating. **2015**, 302, 97-113	5
1614	Thermo-anisotropic crack propagation by XFEM. **2015**, 103, 235-246	11
1613	Material modeling of cardiac valve tissue: Experiments, constitutive analysis and numerical investigation. **2015**, 48, 4287-96	6
1612	Programmable mask design for Phase Controlled Thyristors with automated short positioning. **2015**,	1
1611	Field modeling for transcranial magnetic stimulation: A useful tool to understand the physiological effects of TMS?. **2015**, 2015, 222-5	238
1610	Robust identification of elastic properties using the Modified Constitutive Relation Error. **2015**, 295, 196-218	21
1609	Vibration Reduction of Inductors Under Magnetostrictive and Maxwell Forces Excitation. **2015**, 51, 1-6	17
1608	Detection of ungrounded objects on mutual capacitance touch screens. **2015**,	1
1607	Measurement of scintillation and ionization yield and scintillation pulse shape from nuclear recoils in liquid argon. **2015**, 91,	64
1606	Geometric inpainting of 3D structures. **2015**,	13

1605	Design of metallic nanoparticle gratings for filtering properties in the visible spectrum. **2015**, 54, 10359-68	2
1604	Computational Modeling of the Female Pelvic Support Structures and Organs to Understand the Mechanism of Pelvic Organ Prolapse: A Review. **2015**, 67,	31
1603	Numerical analysis of pump propagation and absorption in specially tailored double-clad rare-earth doped fiber. **2015**, 47, 3181-3191	5
1602	Physical limitations on spatial resolution in electrical capacitance tomography. **2015**, 26, 125105	14
1601	Surface reconstruction of wheat leaf morphology from three-dimensional scanned data. **2015**, 42, 444-451	25
1600	Dynamic modelling of future glacier changes: mass-balance/elevation feedback in projections for the Vestfonna ice cap, Nordaustlandet, Svalbard. **2015**, 61, 1121-1136	7
1599	The transport and fate of riverine fine sediment exported to a semi-open system. **2015**, 167, 336-346	25
1598	Results and Conclusions of the European Project IDIHOM on High-Order Methods for Industrial Aerodynamic Applications. **2015**,	1
1597	Curvilinear Mesh Generation for Boundary Layer Problems. **2015**, 41-64	4
1596	Residual homogenization for elastic wave propagation in complex media. **2015**, 200, 986-999	8
1595	Deformation of Curvilinear Meshes for Aeroelastic Analysis. **2015**, 125-131	1
1594	Development of High-Order Meshing for Industrial Aerospace Configurations. **2015**, 65-78	3
1593	The Generation of Valid Curvilinear Meshes. **2015**, 15-39	13
1592	Internal Aerodynamic Test Cases. **2015**, 607-648	
1591	Direct Visualization of Piecewise Polynomial Data. **2015**, 535-550	2
1590	Higher-Order RANS and DES in an Industrial Stabilized Finite Element Code. **2015**, 489-519	5
1589	Aeroelastic System for Large Scale Computations with High Order Discontinuous Galerkin Flow Solver. **2015**, 457-466	
1588	Development and Validation of a Massively Parallel High-Order Solver for DNS and LES of Industrial Flows. **2015**, 251-292	9

1587	Mesh Curving Techniques for High Order Discontinuous Galerkin Simulations. **2015**, 133-152	22
1586	Numerical investigation of leaky modes in helical structural waveguides embedded into a solid medium. **2015**, 57, 125-34	6
1585	Direct numerical simulations of probe effects in low-pressure flame sampling. **2015**, 35, 821-829	36
1584	About the use of standard integration schemes for X-FEM in solid mechanics plasticity. **2015**, 283, 551-572	10
1583	A monolithic multi-time-step computational framework for first-order transient systems with disparate scales. **2015**, 283, 419-453	7
1582	Scanning electron microscope measurement of width and shape of 10nm patterned lines using a JMONSEL-modeled library. **2015**, 154, 15-28	66
1581	h-Adaptive Stabilized Finite-Element Solver for Calculation of Generalized Aerodynamic Forces. **2015**, 53, 554-572	8
1580	Adaptive Mesh Refinement for Fast Convergence of EFIE-Based 3-D Extraction. **2015**, 5, 404-414	0
1579	3D SEM Approach to Evaluate the Stability of Large-Scale Landslides in Nepal Himalaya. **2015**, 33, 773-793	8
1578	Scalable tight-binding model for graphene. **2015**, 114, 036601	58
1577	BrainPrint: a discriminative characterization of brain morphology. **2015**, 109, 232-48	86
1576	A weighted Nitsche stabilized method for small-sliding contact on frictional surfaces. **2015**, 283, 763-781	20
1575	Equilibrium state of a cylindrical particle with flat ends in nematic liquid crystals. **2015**, 91, 012503	13
1574	Stokes□Cahn□Hilliard formulations and simulations of two-phase flows with suspended rigid particles. **2015**, 111, 1-17	23
1573	On the equivalence between the (s)-method, the XFEM and the ply-by-ply discretization for delamination analyses of laminated composites. **2015**, 191, 107-129	11
1572	Alya: Computational Solid Mechanics for Supercomputers. **2015**, 22, 557-576	21
1571	Texture Generation for Photoacoustic Elastography. **2015**, 52, 369-384	5
1570	Numerical Study of the Impact of Filters Located in the Exhaust Duct of a Low-Voltage Circuit Breaker. **2015**, 5, 49-56	1

1569	A Multiscale Computational Framework to Understand Vascular Adaptation. **2015**, 8, 32-47	17
1568	East Frisian Wadden Sea hydrodynamics and wave effects in an unstructured-grid model. **2015**, 65, 419-434	19
1567	An Adaptive Finite Element Heterogeneous Multiscale Method for Stokes Flow in Porous Media. **2015**, 13, 256-290	9
1566	Impact of plasma sheath on rocket-based E-region ion measurements. **2015**, 355, 23-32	2
1565	Computational and experimental analysis of TMS-induced electric field vectors critical to neuronal activation. **2015**, 12, 046014	31
1564	Firedrake-Fluids v0.1: numerical modelling of shallow water flows using an automated solution framework. **2015**, 8, 533-547	13
1563	Integrating the Stanford University Unstructured Code (SU2) With Overset Grids. **2015**,	2
1562	Anisotropic and feature sensitive triangular remeshing using normal lifting. **2015**, 289, 225-240	9
1561	Recovery-based error estimation in the dynamic analysis of offshore wind turbine monopile foundations. **2015**, 70, 24-40	2
1560	An inverse analysis procedure for material parameter identification of mortar joints in unreinforced masonry. **2015**, 155, 97-105	22
1559	Numerization of a memory effect for an homogenized composite material with a large contrast in the phase thermal conductivities. **2015**, 90, 140-148	3
1558	Stability of the discretization of the electron avalanche phenomenon. **2015**, 296, 369-381	11
1557	Presentation of the dynamical core of neXtSIM, a new sea ice model. **2015**, 91, 23-37	43
1556	Understanding the biophysical effects of transcranial magnetic stimulation on brain tissue: the bridge between brain stimulation and cognition. **2015**, 222, 229-59	17
1555	Nektar++: An open-source spectral/hp element framework. **2015**, 192, 205-219	280
1554	Multiscale modeling of the mechanical behavior of IN718 superalloy based on micropillar compression and computational homogenization. **2015**, 98, 242-253	66
1553	Numerical simulations of crack propagation in screws with phase-field modeling. **2015**, 109, 367-379	14
1552	Tidal resource extraction in the Pentland Firth, UK: Potential impacts on flow regime and sediment transport in the Inner Sound of Stroma. **2015**, 76, 596-607	92

1551	Macroscopic multiaxial yield and failure surfaces for light closed-cell foams. **2015**, 69-70, 60-70	9
1550	3-D Electromagnetic Scattering Computation in Free-Space With the FETI-FDP2 Method. **2015**, 63, 2604-2613	7
1549	Interface control volume finite element method for modelling multi-phase fluid flow in highly heterogeneous and fractured reservoirs. **2015**, 298, 41-61	33
1548	Practice-oriented optical thin film growth simulation via multiple scale approach. **2015**, 592, 240-247	15
1547	A stochastic computational multiscale approach; Application to MEMS resonators. **2015**, 294, 141-167	24
1546	Large-scale 3D modeling of projectile impact damage in brittle plates. **2015**, 83, 48-71	9
1545	Using spectral finite elements for parametric analysis of the vibration reduction index of heavy junctions oriented to flanking transmissions and EN-12354 prediction method. **2015**, 99, 8-23	6
1544	Performance and Scalability of Hierarchical Hybrid Multigrid Solvers for Stokes Systems. **2015**, 37, C143-C168	34
1543	Computational Assessment of Rainfall Effects on Aircraft Aerodynamic Characteristics. **2015**,	1
1542	A Three-dimensional Continuum Model of Active Contraction in Single Cardiomyocytes. **2015**, 157-176	0
1541	FESTUNG: A´MATLAB/GNU´Octave´toolbox for the discontinuous Galerkin method, Part I: Diffusion operator. **2015**, 70, 11-46	23
1540	Correlation between alveolar ventilation and electrical properties of lung parenchyma. **2015**, 36, 1211-26	18
1539	Electromagnetic fields in body by wireless inductive system. **2015**, 34, 590-595	3
1538	Utilizing Triangular Mesh With MMEV to Study Hysteresis Losses of Round Superconductors Obeying Critical State Model. **2015**, 25, 1-5	2
1537	Numerical study of the flow interference between tandem cylinders employing non-linear hybrid URANS□ES methods. **2015**, 142, 111-129	31
1536	Heuristic modeling of the doping efficiency in sputtered TCO layers. **2015**, 267, 81-89	3
1535	Adaptive thermo-mechanical finite element formulation based on goal-oriented error estimation. **2015**, 102, 27-44	11
1534	Rock mechanics model capable of representing initial heterogeneities and full set of 3D failure mechanisms. **2015**, 290, 209-227	41

1533	Surface plasmon hurdles leading to a strongly localized giant field enhancement on two-dimensional (2D) metallic diffraction gratings. **2015**, 23, 9167-82		3
1532	Experimental and numerical study on an ultrasonic horn with shape designed with an optimization algorithm. **2015**, 95, 60-69		15
1531	Workflows for generating tetrahedral meshes for finite element simulations on complex geological structures. **2015**, 79, 105-117		33
1530	A quasi-optimal domain decomposition algorithm for the time-harmonic Maxwell's equations. **2015**, 294, 38-57		23
1529	On Chebyshev method for topology optimization of Stokes flows. **2015**, 51, 801-811		16
1528	Percolation transport study in nitride based LED by considering the random alloy fluctuation. **2015**, 14, 416-424		19
1527	Moisture Sorption of Epoxy Composites Reinforced with Aligned and Notched Triangular Bars. **2015**, 50, 789-800		3
1526	Modelling and Analysis of Electrical Potentials Recorded in Microelectrode Arrays (MEAs). **2015**, 13, 403-26		58
1525	Modelling groundwater flow changes due to thermal effects of radioactive waste disposal at a hypothetical repository site near Sellafield, UK. **2015**, 74, 1589-1602		15
1524	Microfluidically supported biochip design for culture of endothelial cell layers with improved perfusion conditions. **2015**, 7, 015013		45
1523	An efficient fully linearized semi-implicit Galerkin-mixed FEM for the dynamical Ginzburg–Landau equations of superconductivity. **2015**, 294, 329-345		28
1522	An improved quantitative measure of the tendency for volcanic ash plumes to form in water: implications for the deposition of marine ash beds. **2015**, 290, 114-124		9
1521	Ground vibration reduction analysis using a frequency-domain finite element approach. **2015**, 92, 95-103		12
1520	Adaptive delamination analysis. *International Journal for Numerical Methods in Engineering*, **2015**, 104, 1008-1037	2.4	15
1519	Goal-oriented model adaptivity for viscous incompressible flows. **2015**, 55, 1181-1190		3
1518	A study of composite laminates failure using an anisotropic gradient-enhanced damage mean-field homogenization model. **2015**, 126, 246-264		23
1517	Automated segmentation of the lamina cribrosa using Frangi's filter: a novel approach for rapid identification of tissue volume fraction and beam orientation in a trabeculated structure in the eye. **2015**, 12, 20141009		25
1516	Hot Spot Temperature in an HTS Coil: Simulations With MIITs and Finite Element Method. **2015**, 25, 1-7		12

1515	ALE/finite element modeling of an unconfined bubble plume in periodic domain: bubble shape and oscillation analysis. **2015**, 37, 1647-1664	0
1514	Numerical Simulation of Airfoil Vibrations Induced by Turbulent Flow. **2015**, 17, 146-188	6
1513	GeN-Foam: a novel OpenFOAM® based multi-physics solver for 2D/3D transient analysis of nuclear reactors. **2015**, 294, 24-37	66
1512	Multi-dimensional Limiting Strategy for Higher-order CFD Methods - Progress and Issue (Invited). **2015**,	1
1511	Simulations of the start-up of shear flow of 2D particle suspensions in viscoelastic fluids: Structure formation and rheology. **2015**, 225, 70-85	19
1510	Spatial depolarization of light from the bulks: electromagnetic prediction. **2015**, 23, 8246-60	7
1509	On a dissolution–diffusion model. Existence, uniqueness, regularity and simulations. **2015**, 70, 1887-1905	2
1508	Complex faulting in the Quetta Syntaxis: fault source modeling of the October 28, 2008 earthquake sequence in Baluchistan, Pakistan, based on ALOS/PALSAR InSAR data. **2015**, 67,	7
1507	Implementation of a surface based coupling approach in a high-order DG aeroacoustics propagation solver. **2015**,	0
1506	Parallel iterative solution of the incompressible Navier–Stokes equations with application to rotating wings. **2015**, 122, 165-183	10
1505	Miscibility Gap Closure, Interface Morphology, and Phase Microstructure of 3D Li(x)FePO4 Nanoparticles from Surface Wetting and Coherency Strain. **2015**, 9, 9757-71	47
1504	Selection of Geometric Design Variables for Fine Numerical Optimizations of Electrical Machines. **2015**, 51, 1-8	11
1503	Fast Algorithms for Hyperspectral Diffuse Optical Tomography. **2015**, 37, B712-B743	5
1502	Solving Boundary Integral Problems with BEM++. **2015**, 41, 1-40	112
1501	A nodal discontinuous Galerkin method for reverse-time migration on GPU clusters. **2015**, 203, 1419-1435	18
1500	A virtual laboratory for the modeling of Wireless Power Transfer systems. **2015**,	1
1499	Explicit High-Order Discontinuous Galerkin Spectral Element Methods for LES and DNS. **2015**, 281-296	1
1498	Particle-based fluids for viscous jet buckling. **2015**, 52, 106-115	9

1497	Enhanced simulation of an RF ion funnel including gas turbulence. **2015**, 50, 206-11	9
1496	Large optical field enhancement for nanotips with large opening angles. **2015**, 17, 063010	52
1495	Towards a realistic morphological model for the meso-scale mechanical and transport behavior of cementitious composites. **2015**, 81, 72-83	15
1494	Flow Past Tandem Circular Cylinders at High Reynolds Numbers using Overset Grids in OpenFOAM. **2015**,	0
1493	High-order unstructured grid generation and Discontinuous Galerkin discretization applied to a 3D high-lift configuration. **2015**,	7
1492	Adapting Collaborative Software Development Techniques to Structural Engineering. **2015**, 17, 27-34	4
1491	Mode-field adapter for tapered-fiber-bundle signal and pump combiners. **2015**, 54, 751-6	16
1490	High-order Discontinuous Galerkin Methods Applied to Multiphase Flows. **2015**,	
1489	Finite-Element Modelling of the Response of the Gerbil Middle Ear to Sound. **2015**, 16, 547-67	18
1488	An efficient simulation-optimization coupling for management of coastal aquifers. **2015**, 23, 1167-1179	12
1487	Modeling of gas flow and deposition profile in HWCVD processes. **2015**, 595, 266-271	6
1486	A Collective Approach for Reconstructing 3D Fiber Arrangements in Virtual Musculoskeletal Soft Tissue Models. **2015**, 117-128	
1485	An enhanced grain-boundary framework for computational homogenization and micro-cracking simulations of polycrystalline materials. **2015**, 56, 631-651	29
1484	Computational evaluation of amplitude modulation for enhanced magnetic nanoparticle hyperthermia. **2015**, 60, 491-504	9
1483	Experimental and Fluid Structure Interaction analysis of a morphing wind turbine rotor. **2015**, 90, 1055-1065	28
1482	Prediction of empirical properties using direct pore-scale simulation of straining through 3D microtomography images of porous media. **2015**, 529, 768-778	37
1481	Aseismic strike-slip associated with the 2007 dike intrusion episode in Tanzania. **2015**, 656, 52-60	5
1480	Influence of specimen shape deviations on uniaxial compressive strength of limestone and similar rocks. **2015**, 80, 357-372	11

1479	The boundary element method for light scattering by ice crystals and its implementation in BEM++. **2015**, 167, 40-52		22
1478	Solitary Wave Breaking on Irregular 3D Bathymetry Using a Coupled Potential + Viscous Flow Model. **2015**, 141, 04014171		1
1477	. **2015**, 30, 340-348		2
1476	An isoparametric approach to high-order curvilinear boundary-layer meshing. **2015**, 283, 636-650		44
1475	Numerical simulations of a shock interacting with successive interfaces using the Discontinuous Galerkin method: the multilayered Richtmyer Meshkov and Rayleigh Taylor instabilities. **2015**, 25, 329-345		14
1474	A manifold learning-based reduced order model for springback shape characterization and optimization in sheet metal forming. **2015**, 285, 621-638		19
1473	A robust and adaptive recovery-based discontinuous Galerkin method for the numerical solution of convection diffusion equations. **2015**, 77, 63-91		15
1472	The Thick Level Set method: Sliding deformations and damage initiation. **2015**, 285, 64-82		20
1471	High-order linear and non-linear residual distribution schemes for turbulent compressible flows. **2015**, 285, 1-31		8
1470	Second order finite volume scheme for Maxwell's equations with discontinuous electromagnetic properties on unstructured meshes. **2015**, 282, 33-42		21
1469	A hybrid approach to the computational aeroacoustics of human voice production. **2015**, 14, 473-88		27
1468	A novel FSI thermal coupled TEHD model and experimental validation through indirect film thickness measurements for the lubricating interface in external gear machines. **2015**, 82, 162-175		20
1467	Micromechanical investigation of ductile failure in Al 5083-H116 via 3D unit cell modeling. **2015**, 74, 97-110		15
1466	A boundary collocation meshfree method for the treatment of Poisson problems with complex morphologies. **2015**, 281, 225-236		10
1465	A nonoverlapping heterogeneous domain decomposition method for three-dimensional gravity wave impact problems. **2015**, 106, 154-170		5
1464	The extended finite element method combined with a modal synthesis approach for vibro-acoustic problems. *International Journal for Numerical Methods in Engineering*, **2015**, 101, 329-350	2.4	3
1463	Multiscale Displacement Field Measurement Using Digital Image Correlation: Application to the Identification of Elastic Properties. **2015**, 55, 121-137		59
1462	A new limiting procedure for discontinuous Galerkin methods applied to compressible multiphase flows with shocks and interfaces. **2015**, 280, 489-509		28

1461	A structure-exploiting numbering algorithm for finite elements on extruded meshes, and its performance evaluation in Firedrake. **2016**, 9, 3803-3815		19
1460	Benchmark Computations of Stresses in a Spherical Dome with Shell Finite Elements. **2016**, 38, B440-B457		3
1459	ISSM-SESAW v1.0: mesh-based computation of gravitationally consistent sea-level and geodetic signatures caused by cryosphere and climate driven mass change. **2016**, 9, 1087-1109		33
1458	An Object-Oriented Framework for Versatile Finite Element Based Simulations of Neurostimulation. **2016**, 2016, 1-15		4
1457	A Two-Temperature Open-Source CFD Model for Hypersonic Reacting Flows, Part Two: Multi-Dimensional Analysis. **2016**, 3, 45		22
1456	Parametric study on the influence of geometrical characteristics of horizontal wavy surface on nusselt number: Solar applications. **2016**,		
1455	Integrated whole-heart computational workflow for inverse potential mapping and personalized simulations. **2016**, 14, 147		1
1454	Image-Based Modeling of Blood Flow and Oxygen Transfer in Feto-Placental Capillaries. **2016**, 11, e0165369		29
1453	Second Order Finite Volume Scheme on Tetrahedral Meshes for Three-Dimensional Maxwell's Equations with Discontinuous Dielectric Permittivity. **2016**, 108, 02030		
1452	Numerical solution of the thermal influence of oil well cluster on permafrost. **2016**,		
1451	Boundary Detection in Particle-based Fluids. **2016**, 35, 215-224		9
1450	A multiscale approach to the computational characterization of magnetorheological elastomers. *International Journal for Numerical Methods in Engineering*, **2016**, 107, 338-360	2.4	45
1449	A Nonlinear Multiscale Viscosity Method to Solve Compressible Flow Problems. **2016**, 3-17		5
1448	On the adaptive finite element analysis of the Kohn–Sham equations: methods, algorithms, and implementation. *International Journal for Numerical Methods in Engineering*, **2016**, 106, 863-888	2.4	11
1447	Improvement of the homogeneity of high mobility In2O3:H films by sputtering through a mesh electrode studied by Monte Carlo simulation and thin film analysis. **2016**, 213, 2310-2316		1
1446	Multiscale insights into classical geomechanics problems. **2016**, 40, 367-390		50
1445	Numerical simulation of electrocardiograms for full cardiac cycles in healthy and pathological conditions. **2016**, 32, e02744		7
1444	Modal decomposition-based global stability analysis for reduced order modeling of 2D and 3D wake flows. **2016**, 81, 178-191		5

1443	Using orbital tethers to remediate geomagnetic radiation belts. **2016**, 121, 1114-1123	1
1442	Fitted finite element discretization of two-phase Stokes flow. **2016**, 82, 709-729	4
1441	Implicit Large-Eddy Simulation for the High-Order Flux Reconstruction Method. **2016**, 54, 2721-2733	18
1440	Quantifying the Influence of the Crowded Cytoplasm on Small Molecule Diffusion. **2016**, 120, 8696-706	23
1439	Generation of unstructured curvilinear grids and high-order discontinuous Galerkin discretization applied to a 3D high-lift configuration. **2016**, 82, 316-333	10
1438	Micromechanical validation of a mesomodel for plasticity in composites. **2016**, 60, 58-69	29
1437	Numerical modeling of heart valves using resistive Eulerian surfaces. **2016**, 32, e02743	13
1436	Numerical resolution of the C-root model using Discontinuous Galerkin methods on unstructured meshes: Application to the simulation of root system growth. **2016**,	
1435	Computational analysis of the effect of superparamagnetic nanoparticle properties on bioheat transfer in magnetic nanoparticle hyperthermia. **2016**,	
1434	A review of flux reconstruction or correction procedure via reconstruction method for the Navier-Stokes equations. **2016**, 3, 15-00475-15-00475	27
1433	The inverse problem in electroencephalography using the bidomain model of electrical activity. **2016**, 274, 94-105	6
1432	Flow dynamics and enhanced mixing in a converging□diverging channel. **2016**, 807, 167-204	16
1431	Efficient Mesh Management in Firedrake Using PETSc DMPlex. **2016**, 38, S143-S155	18
1430	Patient-Specific Computational Analysis of Ventricular Mechanics in Pulmonary Arterial Hypertension. **2016**, 138,	26
1429	Impact of Internal Magnetic Gradients on Nuclear Magnetic Resonance Measurements and NMR-Based Pore Network Characterization. **2016**,	2
1428	IC thermal analyzer for versatile 3-D structures using multigrid preconditioned krylov methods. **2016**,	2
1427	Application of an Adaptive Polynomial Chaos Expansion on Computationally Expensive Three-Dimensional Cardiovascular Models for Uncertainty Quantification and Sensitivity Analysis. **2016**, 138,	19
1426	Using domain walls to perform non-local measurements with high spin signal amplitudes. **2016**, 109, 042405	3

1425 Towards Green Aviation with Python at Petascale. **2016**, 19

1424 Reduced Basis Approaches in Time-Dependent Non-Coercive Settings for Modelling the Movement of Nuclear Reactor Control Rods. **2016**, 20, 23-59 2

1423 Force Decomposition for Magnetic Actuators. **2016**, 1-1

1422 Time-domain homogenization of litz-wire bundles in FE calculations. **2016**, 1

1421 Noise Aware Scheduling in Data Centers. **2016**, 1

1420 Transient heat transfer analysis of housing and PMM using 3-D FE code. **2016**, 1

1419 Electrical detection of magnetic domain walls by inverse and direct spin Hall effect. **2016**, 109, 192401 4

1418 THGEM gain calculations using Garfield++: solving discrepancies between simulation and experimental data. **2016**, 11, P08018-P08018 8

1417 A modified mathematical model of the anatomy of the cardiac left ventricle. **2016**, 61, 785-792 2

1416 3D numerical modeling of the carrier transport and radiative efficiency for InGaN/GaN light emitting diodes with V-shaped pits. **2016**, 6, 055208 25

1415 Computationally efficient simulation of unsteady aerodynamics using POD on the fly. **2016**, 48, 061424 1

1414 Basic design of a multi wire proportional counter using Garfield++ for ILSF. **2016**, 11, C12021-C12021

1413 Investigation of the interwire energy transfer of elastic guided waves inside prestressed cables. **2016**, 140, 498 13

1412 Automated Parallel Simulation of Heart Electrical Activity Using Finite Element Method. **2016**, 365-372

1411 Bristles reduce the force required to 'fling' wings apart in the smallest insects. **2016**, 219, 3759-3772 36

1410 Virtual method for the determination of an optimum thermal design of hot stamping tools. **2016**, 159, 012004 1

1409 Computer Programs for Equilibrium Finite Element Formulations. **2016**, 254-269

1408 An Approach Towards a FEP-based Model for Risk Assessment for Hydraulic Fracturing Operations. **2016**, 97, 387-394 6

1407	Fast and Robust Mesh Generation on the Sphere Application to Coastal Domains. **2016**, 163, 20-32	4
1406	Efficient Computation of the Minimum of Shape Quality Measures on Curvilinear Finite Elements. **2016**, 163, 328-339	5
1405	A Parallel Edge Orientation Algorithm for Quadrilateral Meshes. **2016**, 38, S48-S61	15
1404	Design and experimental study of a secondary hohlraum radiation source with laser focal spots blocked. **2016**, 23, 013305	1
1403	Experimental and computational studies of the aerodynamic performance of a flapping and passively rotating insect wing. **2016**, 791, 1-33	34
1402	Particle mobility between two planar elastic membranes: Brownian motion and membrane deformation. **2016**, 28, 071903	25
1401	Automatic processing of an orientation map into a finite element mesh that conforms to grain boundaries. **2016**, 24, 055014	14
1400	Mesh Generation. 67-147	
1399	An Object Oriented Parallel Finite Element Scheme for Computations of PDEs: Design and Implementation. **2016**,	8
1398	On the issue of simulating very large endfire arrays with complex antenna geometries. **2016**,	1
1397	A mesh adaptivity scheme on the Landau de Gennes functional minimization case in 3D, and its driving efficiency. **2016**, 321, 981-996	12
1396	A computational method for modeling arbitrary junctions employing different surface integral equation formulations for three-dimensional scattering and radiation problems. **2016**, 30, 689-713	2
1395	Modified shear stress transport model with curvature correction for the prediction of swirling flow in a cyclone separator. **2016**, 147, 150-165	22
1394	Isogeometric triangular Bernstein Bézier discretizations: Automatic mesh generation and geometrically exact finite element analysis. **2016**, 304, 378-407	38
1393	A simple mesh-update procedure for fluid structure interaction problems. **2016**, 169, 13-23	4
1392	Spatial Working Memory in Humans Depends on Theta and High Gamma Synchronization in the Prefrontal Cortex. **2016**, 26, 1513-1521	134
1391	Combined meso-scale modeling and experimental investigation of the effect of mechanical damage on the transport properties of cementitious composites. **2016**, 96-97, 22-37	10
1390	The effect of a uniform through-surface flow on a cylinder and sphere. **2016**, 793, 798-839	3

1389	A squirmer across Reynolds numbers. **2016**, 796, 233-256	45
1388	Assessment of a high-order discontinuous Galerkin method for internal flow problems. Part I: Benchmark results for quasi-1D, 2D waves propagation and axisymmetric turbulent flows. **2016**, 134-135, 61-80	
1387	Numerical Modeling of Miscible Viscous Fingering Instabilities by High-Order Methods. **2016**, 113, 607-628	14
1386	Electrical resistivity imaging in transmission between surface and underground tunnel for fault characterization. **2016**, 128, 163-178	17
1385	Penalty method with P1/P1 finite element approximation for the Stokes equations under the slip boundary condition. **2016**, 134, 705-740	12
1384	Design Sensitivity Analysis for Shape Optimization of Nonlinear Magnetostatic Systems. **2016**, 52, 1-4	7
1383	Spectral element computation of high-frequency leaky modes in three-dimensional solid waveguides. **2016**, 314, 341-354	13
1382	Simulations of the flow in the Mahakam river□lake□delta system, Indonesia. **2016**, 16, 603-633	12
1381	GPU-accelerated discontinuous Galerkin methods on hybrid meshes. **2016**, 318, 142-168	43
1380	Numerical study of tides in Ontario Lacus, a hydrocarbon lake on the surface of the Saturnian moon Titan. **2016**, 66, 461-482	6
1379	A New Mixed Formulation and Efficient Numerical Solution of Ginzburg--Landau Equations Under the Temporal Gauge. **2016**, 38, A1339-A1357	5
1378	Numerical simulation of the flow through a compressor-valve model using an immersed-boundary method. **2016**, 10, 255-271	4
1377	Calculation and analysis of the complex band structure of dispersive and dissipative two-dimensional photonic crystals. **2016**, 33, 691	19
1376	Stable 3D extended finite elements with higher order enrichment for accurate non planar fracture. **2016**, 306, 19-46	54
1375	Finite element formulation of fluctuating hydrodynamics for fluids filled with rigid particles using boundary fitted meshes. **2016**, 316, 632-651	12
1374	Partitioned iterative and dynamic subgrid-scale methods for freely vibrating square-section structures at subcritical Reynolds number. **2016**, 133, 68-89	37
1373	A reduced basis finite element heterogeneous multiscale method for Stokes flow in porous media. **2016**, 307, 1-31	7
1372	Structured Mesh Generation: Open-source automatic nonuniform mesh generation for FDTD simulation.. **2016**, 58, 45-55	6

1371	Electromagnetic modeling of large subwavelength-patterned highly resonant structures. **2016**, 41, 2358-61	7
1370	Float printing deposition to control the morphology of TiO2 photoanodes on woven textile metal substrates for TCO-free flexible dye-sensitized solar cells. **2016**, 6, 67331-67339	12
1369	Numerical simulation of powder flow in a pharmaceutical tablet press lab-scale gravity feeder. **2016**, 302, 309-327	25
1368	Dynamics of cell wall elasticity pattern shapes the cell during yeast mating morphogenesis. **2016**, 6,	21
1367	Urban flood modeling using shallow water equations with depth-dependent anisotropic porosity. **2016**, 541, 1165-1184	44
1366	Towards adaptive topology optimization. **2016**, 100, 290-307	26
1365	Global sensitivity analysis using low-rank tensor approximations. **2016**, 156, 64-83	36
1364	Multiscale modelling of transport phenomena for materials with n-layered embedded fibres. Part II: Investigation of fibre packing effects. **2016**, 97-98, 566-574	4
1363	Kinematics, seismotectonics and seismic potential of the eastern sector of the European Alps from GPS and seismic deformation data. **2016**, 688, 157-181	56
1362	Augmented Reality Imaging for Robot-Assisted Partial Nephrectomy Surgery. **2016**, 139-150	8
1361	Thin-Film Deposition Processes. **2016**, 157-189	
1360	On the coupling of analytical and FEM solution in stress analysis around the polygonal hole shape in a finite two-dimensional domain. **2016**, 118, 254-267	8
1359	An additive manufacturing process model for product family design. **2016**, 27, 751-767	18
1358	Identification in transient dynamics using a geometry-based cost function in Finite Element Model Updating method. **2016**, 122, 49-60	2
1357	The extended distributed microstructure model for gradient-driven transport: A two-scale model for bypassing effective parameters. **2016**, 327, 810-829	16
1356	A mixed adhesion–brittle fracture model and its application to the numerical study of ice shedding mechanisms. **2016**, 158, 59-80	11
1355	Polynomial meta-models with canonical low-rank approximations: Numerical insights and comparison to sparse polynomial chaos expansions. **2016**, 321, 1144-1169	57
1354	A modal-spectral model for flanking transmissions. **2016**, 382, 238-257	1

1353	Triangular node for Transmission-Line Modeling (TLM) applied to bio-heat transfer. **2016**, 62, 116-122	6
1352	Closed loop voltage control of a solenoid using parallel finite element method. **2016**, 35, 1439-1449	1
1351	Characterization of reactive transport by 3-D electrical resistivity tomography (ERT) under unsaturated conditions. **2016**, 52, 8295-8316	2
1350	An Immersogeometric Method for the Simulation of Turbulent Flow Around Complex Geometries. **2016**, 111-125	
1349	Real-case benchmark for flow and tracer transport in the fractured rock. **2016**, 75, 1	6
1348	Study of the influence of the oxide and concrete parameters on the results of accelerated corrosion tests. **2016**, 2, 2849-2856	1
1347	Investigation of the Effect of Internal Pores Distribution on the Elastic Properties of Closed-Cell Aluminum Foam: A Comparison with Cancellous Bone. **2016**, 2, 1285-1294	7
1346	Hematologic characterization and 3D imaging of red blood cells using a Compressive Nano-antenna and ML-FMA modeling. **2016**,	3
1345	Reliability analysis of high-dimensional models using low-rank tensor approximations. **2016**, 46, 18-36	20
1344	Stabilized X-FEM for Heaviside and Nonlinear Enrichments. **2016**, 209-228	4
1343	GPU accelerated spectral finite elements on all-hex meshes. **2016**, 324, 246-257	19
1342	Implicit finite incompressible elastodynamics with linear finite elements: A stabilized method in rate form. **2016**, 311, 208-249	37
1341	Mixed finite element discontinuous finite volume element discretization of a general class of multicontinuum models. **2016**, 322, 666-688	14
1340	Hybrid vertex-midline modelling of elongated plant organs. **2016**, 6, 20160043	12
1339	Homogenized moment tensor and the effect of near-field heterogeneities on nonisotropic radiation in nuclear explosion. **2016**, 121, 4366-4389	9
1338	Simulation of micro-seismicity in response to injection/production in large-scale fracture networks using the fast multipole displacement discontinuity method (FMDDM). **2016**, 71, 179-189	15
1337	Investigating Evaporation in Gas Diffusion Layers for Fuel Cells with X-ray Computed Tomography. **2016**, 120, 28701-28711	62
1336	Transformer-less 2 kW non isolated 400 VDC/230 VAC single stage micro inverter. **2016**,	6

1335	Tetrahedral node for Transmission-Line Modeling (TLM) applied to Bio-heat Transfer. **2016**, 79, 243-249	5
1334	Spatial patterns of seagrass dispersal and settlement. **2016**, 22, 1150-1162	30
1333	A novel approach to analyze beam-like composite structures using mechanics of structure genome. **2016**, 100, 238-251	30
1332	Stochastic Modeling and Regularity of the Nonlinear Elliptic curl--curl Equation. **2016**, 4, 952-979	7
1331	Modelling ground vibrations induced by harmonic loads. **2016**, 169, 399-409	3
1330	Superelastic stress-strain behavior in ferrogels with different types of magneto-elastic coupling. **2016**, 18, 26670-26690	30
1329	Real-time 3D imaging of microstructure growth in battery cells using indirect MRI. **2016**, 113, 10779-84	91
1328	STEMO, a stabilized toolkit for embedded dielectric structures with moment methods. **2016**,	
1327	Terahertz ratchet effects in graphene with a lateral superlattice. **2016**, 93,	50
1326	Bilayer-thickness-mediated interactions between integral membrane proteins. **2016**, 93, 042410	20
1325	Direct numerical simulation of particle alignment in viscoelastic fluids. **2016**, 235, 125-142	30
1324	Modelling interfacial cracking with non-matching cohesive interface elements. **2016**, 58, 731-746	18
1323	Ferromagnetic/Nonmagnetic Nanostructures for the Electrical Measurement of the Spin Hall Effect. **2016**, 16, 6755-6760	27
1322	Magnetically aligned graphite electrodes for high-rate performance Li-ion batteries. **2016**, 1,	314
1321	Dynamic finite-element model for efficient modelling of electric currents in electroporated tissue. **2016**, 6, 26409	38
1320	Analysis of direct-on-line synchronous reluctance machine (DOLSynRM) start-up using a magnetic field decomposition. **2016**,	5
1319	Data management system for computational experiments in blood cell modelling: Mesh analysis showcase. **2016**,	
1318	The fin-to-limb transition as the re-organization of a Turing pattern. **2016**, 7, 11582	60

1317	Assessing morphology and function of the semicircular duct system: introducing new in-situ visualization and software toolbox. **2016**, 6, 32772	24
1316	Frequency-domain homogenization for litz-wire bundles in finite element calculations. **2016**,	4
1315	Optimal Approximation of the First-Order Corrector in Multiscale Stochastic Elliptic PDE. **2016**, 4, 1246-1262	
1314	Discontinuous Galerkin methods for dispersive shallow water models in closed basins: Spurious eddies and their removal using curved boundary methods. **2016**, 107, 112-124	4
1313	Spectral study of the Laplace–Beltrami operator arising in the problem of acoustic wave scattering by a quarter-plane. **2016**, 69, 281-317	7
1312	Gate-controlled conductance enhancement from quantum Hall channels along graphene p-n junctions. **2016**, 8, 19910-19916	10
1311	Architecture and Function of Mechanosensitive Membrane Protein Lattices. **2016**, 6, 19214	16
1310	One-dimensional model and solutions for creeping gas flows in the approximation of uniform pressure. **2016**, 94, 053121	
1309	Fault source model for the 2016 Kumamoto earthquake sequence based on ALOS-2/PALSAR-2 pixel-offset data: evidence for dynamic slip partitioning. **2016**, 68,	43
1308	Impact of the angle of implantation of transverse intrafascicular multichannel electrodes on axon activation. **2016**,	5
1307	Shape and topology optimization of electrical machines using lie derivative-based analytical sensitivity analysis. **2016**,	
1306	Transparent Redirection of File-Based Data Accesses for Distributed Scientific Applications. **2016**,	
1305	A flexible beam with corrugated web and its performance under bending: an experimental study. **2016**, 86, 01009	1
1304	Free phase gas processes in a northern peatland inferred from autonomous field-scale resistivity imaging. **2016**, 52, 2996-3018	9
1303	Multi-port Characterization of a Modal Filter Containing Micro-perforated Panels. **2016**,	0
1302	Efficient formulations of the material identification problem using full-field measurements. **2016**, 58, 235-255	3
1301	Effect of ocular shape and vascular geometry on retinal hemodynamics: a computational model. **2016**, 15, 893-907	5
1300	Estuarine circulation in the Taranto Seas. **2016**, 23, 12515-34	16

1299	Comparison of 2D and 3D Computational Multiphase Fluid Flow Models of Oxygen Lancing of Pyrometallurgical Furnace Tap-Holes. **2016**, 68, 1556-1562	2
1298	Finite element modelling of the ionic conductivity of acceptor doped ceria. **2016**, 36, 1983-1994	8
1297	Force sensing using 3D displacement measurements in linear elastic bodies. **2016**, 58, 91-105	4
1296	Convergence of a finite-volume scheme for the Cahn–Hilliard equation with dynamic boundary conditions. **2016**, 36, 1898-1942	6
1295	Implicit filtered PN for high-energy density thermal radiation transport using discontinuous Galerkin finite elements. **2016**, 321, 624-643	22
1294	Multiscale modelling of transport phenomena for materials with n-layered embedded fibres. Part I: Analytical and numerical-based approaches. **2016**, 97-98, 625-636	6
1293	Latent energy storage: Melting process around heating cylinders. **2016**, 8, 128-140	8
1292	Unstructured-mesh modeling of the Congo river-to-sea continuum. **2016**, 66, 589-603	10
1291	Screening the geomechanical stability (thermal and mechanical) of shared multi-user CO2 storage assets: A simple effective tool applied to the Captain Sandstone Aquifer. **2016**, 45, 43-61	13
1290	Finite element modeling of periodic polycrystalline aggregates with intergranular cracks. **2016**, 90, 60-68	12
1289	Development and verification of the neutron diffusion solver for the GeN-Foam multi-physics platform. **2016**, 96, 212-222	26
1288	Foundations of the blended isogeometric discontinuous Galerkin (BIDG) method. **2016**, 305, 658-681	17
1287	Efficient mesh deformation based on radial basis function interpolation by means of the inverse fast multipole method. **2016**, 308, 286-309	17
1286	GetDDM: An open framework for testing optimized Schwarz methods for time-harmonic wave problems. **2016**, 203, 309-330	13
1285	Frequency-domain homogenization for impedance characterization of litz-wire transformers in 2-D finite element models. **2016**,	6
1284	A Hybrid 3D Discontinuous Galerkin Code for CAA Applications. **2016**,	3
1283	Curved mesh generation using radial basis functions. **2016**,	2
1282	Essential spectrum of local multi-trace boundary integral operators. **2016**, 81, 961-983	4

1281	Linear Stability Implications of Chevron Geometry Modifications for Turbulent Jets. **2016**,	1
1280	Application of a Three-Dimensional Unstructured-Mesh Finite-Element Flooding Model and Comparison with Two-Dimensional Approaches. **2016**, 30, 823-841	12
1279	A geometrical shift results in erroneous appearance of low frequency tissue eddy current induced phase maps. **2016**, 76, 905-12	9
1278	An efficient 3D numerical beam model based on cross sectional analysis and Ritz approximations. **2016**, 96, 791-812	4
1277	Comparison of the use of NiFe and CoFe as electrodes for metallic lateral spin valves. **2016**, 27, 035201	11
1276	High Order Implicit-explicit General Linear Methods with Optimized Stability Regions. **2016**, 38, A1430-A1453	17
1275	A modified direct method for void fraction calculation in CFDDEM simulations. **2016**, 27, 19-32	27
1274	Methodology Development for Coupled Aeroelastic Analysis of Wing Flutter. **2016**,	1
1273	An Open Source Reverse Engineering Workflow: Geometry to Optimization. **2016**,	0
1272	Development and Assessment of a Reconstructed Discontinuous Galerkin Method for the Compressible Turbulent Flows on Hybrid Grids. **2016**,	12
1271	Thermo-mechanical forming of a large sling shackle. **2016**, 86, 1573-1591	3
1270	Optimizing Transcutaneous Energy Transmitter Using Game Theory. **2016**, 52, 1-4	1
1269	EMUstack: An open source route to insightful electromagnetic computation via the Bloch mode scattering matrix method. **2016**, 202, 276-286	8
1268	3D CFD simulations of air cooled condenser-III: Thermal Hydraulic characteristics and design optimization under forced convection conditions. **2016**, 93, 1227-1247	38
1267	Numerical investigation of nanofluid natural convection coupling with nanoparticles sedimentation. **2016**, 95, 411-420	16
1266	Simulations of electron avalanches in an ultra-low-background proportional counter. **2016**, 810, 37-43	1
1265	An efficient way to assemble finite element matrices in vector languages. **2016**, 56, 833-864	13
1264	Effects of anisotropic voids on thermal properties of insulating media investigated using 3D printed samples. **2016**, 111, 529-542	22

1263	Parallel hierarchical multiscale modelling of hydro-mechanical problems for saturated granular soils. **2016**, 305, 37-61	44
1262	Decomposition of Electric Motor Torque According to Electromagnetic Field Sources. **2016**, 31, 588-595	4
1261	Comparison of iterative solvers for electromagnetic analysis of plasmonic nanostructures using multiple surface integral equation formulations. **2016**, 30, 456-472	7
1260	3D multiscale modeling of strain localization in granular media. **2016**, 80, 360-372	76
1259	Minimum divergence viscous flow simulation through finite difference and regularization techniques. **2016**, 95, 29-45	1
1258	Transonic flutter analysis using a fully coupled density based solver for inviscid flow. **2016**, 95, 1-6	2
1257	A discontinuous Galerkin method for nonlinear shear-flexible shells. **2016**, 303, 128-162	9
1256	A resource efficient design strategy to optimise the temperature coefficient of capacitance of BaTiO3-based ceramics using finite element modelling. **2016**, 4, 6896-6901	22
1255	A composite mixed finite element model for the elasto-plastic analysis of 3D structural problems. **2016**, 113, 43-53	15
1254	Double resonance capture of a two-degree-of-freedom oscillator coupled to a non-ideal motor. **2016**, 51, 2203-2214	14
1253	Polydispersed flow modelling using population balances in an adaptive mesh finite element framework. **2016**, 87, 208-225	16
1252	Optimizing the geometrical accuracy of curvilinear meshes. **2016**, 310, 361-380	20
1251	. **2016**, 104, 1620-1631	29
1250	Numerical Modeling of Pump Absorption in Coiled and Twisted Double-Clad Fibers. **2016**, 22, 55-62	27
1249	3-D Modeling of Heterogeneous and Anisotropic Superconducting Media. **2016**, 52, 1-4	7
1248	Two-phase CFD validation: TOPFLOW-PTS steady-state steam-water tests 316, 317, 318 and 319. **2016**, 299, 18-27	8
1247	Micromechanical modeling for the probabilistic failure prediction of stents in high-cycle fatigue. **2016**, 87, 405-417	6
1246	Ultrasonic thermometry simulation in a random fluctuating medium: Evidence of the acoustic signature of a one-percent temperature difference. **2016**, 68, 61-70	7

1245	A new approach to automatic and a priori mesh adaptation around circular holes for finite element analysis. **2016**, 77, 18-45	4
1244	Automatic fixtureless inspection of non-rigid parts based on filtering registration points. **2016**, 87, 687-712	12
1243	On the stability of approximations for the Stokes problem using different finite element spaces for each component of the velocity. **2016**, 99, 51-76	4
1242	Dispersion curve veering of longitudinal guided waves propagating inside prestressed seven-wire strands. **2016**, 367, 56-68	23
1241	A Novel Regularization Technique for Microendoscopic Electrical Impedance Tomography. **2016**, 35, 1593-603	15
1240	A parallel and adaptive hybridized discontinuous Galerkin method for anisotropic nonhomogeneous diffusion. **2016**, 304, 118-139	15
1239	Numerical and experimental study of an interference fitted joint using a large deformation Chaboche type combined isotropic–kinematic hardening law and mortar contact method. **2016**, 106, 297-318	10
1238	A perspective on high-order methods in computational fluid dynamics. **2016**, 59, 1	22
1237	Hierarchical multi-dimensional limiting strategy for correction procedure via reconstruction. **2016**, 308, 57-80	20
1236	Numerical modeling of non-Newtonian biomagnetic fluid flow. **2016**, 126, 170-180	8
1235	Modeling continuous high-shear wet granulation with DEM-PB. **2016**, 142, 190-200	22
1234	Computational homogenisation from a 3D finite element model of asphalt concrete—linear elastic computations. **2016**, 110, 43-57	30
1233	Fluid–structure interaction analysis of a morphing vertical axis wind turbine. **2016**, 60, 143-159	40
1232	Towards a Fluid-Structure Interaction Solver for Problems with Large Deformations Within the Open-Source SU2 Suite. **2016**,	12
1231	Critical assessment of the post-breakage performance of blast loaded laminated glazing: Experiments and simulations. **2016**, 88, 61-71	54
1230	Numerical modeling of laser generated cavitation bubbles with the finite volume and volume of fluid method, using OpenFOAM. **2016**, 126, 71-90	110
1229	Variational methods for phononic calculations. **2016**, 60, 46-61	8
1228	A fitted finite element method for the numerical approximation of void electro-stress migration. **2016**, 104, 204-217	0

1227	From Finite Element Meshes to Clouds of Points: A Review of Methods for Generation of Computational Biomechanics Models for Patient-Specific Applications. **2016**, 44, 3-15		46
1226	3D CFD simulations of air cooled condenser-II: Natural draft around a single finned tube kept in a small chimney. **2016**, 92, 507-522		23
1225	Borehole thermal energy storage (BTES). First results from the injection phase of a living lab in Torino (NW Italy). **2016**, 86, 993-1008		36
1224	Tools for Visualizing Cuts in Electrical Engineering Education. **2016**, 52, 1-4		2
1223	Non-conforming curved finite element schemes for time-dependent elastic–acoustic coupled problems. **2016**, 305, 44-62		5
1222	Reynolds stress turbulence model applied to two-phase pressurized thermal shocks in nuclear power plant. **2016**, 299, 201-213		2
1221	Development of a finite volume inter-cell polynomial expansion method for the neutron diffusion equation. **2016**, 53, 1212-1223		6
1220	Sustainability evaluation of a medium scale GSHP system in a layered alluvial setting using 3D modeling suite. **2016**, 59, 14-26		20
1219	The tetrahedral finite cell method for fluids: Immersogeometric analysis of turbulent flow around complex geometries. **2016**, 141, 135-154		56
1218	The Discontinuous Galerkin Method as an Enabling Technology for DNS and LES of Industrial Aeronautical Applications. **2016**, 75-96		
1217	A reduced-dimensional model for near-wall transport in cardiovascular flows. **2016**, 15, 713-22		16
1216	Coil Winding Losses: Decomposition Strategy. **2016**, 52, 1-6		1658
1215	Moving meshes to solve the time-dependent neutron diffusion equation in hexagonal geometry. **2016**, 291, 197-208		13
1214	Modelling fine-grained sediment transport in the Mahakam land–sea continuum, Indonesia. **2016**, 13, 103-120		5
1213	Innovative straight formulation for plate in bending. **2017**, 180, 117-124		4
1212	Simulations and parameter estimation of a trap-insect model using a finite element approach. **2017**, 133, 47-75		9
1211	Efficient solvers for coupled models in respiratory mechanics. **2017**, 33, e02795		6
1210	An adaptive level-set method with enhanced volume conservation for simulations in multiphase domains. *International Journal for Numerical Methods in Engineering*, **2017**, 109, 555-576	2.4	22

1209	Modelling complex cracks with finite elements: a kinematically enriched constitutive model. **2017**, 203, 21-39		8
1208	Dynamics of a microorganism in a sheared viscoelastic liquid. **2016**, 13, 196-211		16
1207	Remeshing strategies for large deformation problems with frictional contact and nearly incompressible materials. *International Journal for Numerical Methods in Engineering*, **2017**, 109, 1289-1314	2.4	3
1206	Automated Wingbox Structure Generation Through MATLAB. **2017**,		0
1205	Numerical Simulation of Real-Time Deformability Cytometry To Extract Cell Mechanical Properties. **2017**, 3, 2962-2973		76
1204	Well-Balanced Nodal Discontinuous Galerkin Method for Euler Equations with Gravity. **2017**, 71, 1062-1093		20
1203	Dynamic modeling of uteroplacental blood flow in IUGR indicates vortices and elevated pressure in the intervillous space - a pilot study. **2017**, 7, 40771		24
1202	A parallel discontinuous Galerkin/cohesive-zone computational framework for the simulation of fracture in shear-flexible shells. **2017**, 317, 480-506		2
1201	Spatial distribution of airway wall displacements during breathing and bronchoconstriction measured by ultrasound elastography using finite element image registration. **2017**, 75, 174-184		1
1200	Best Practices for Unstructured Grid Shock Fitting. **2017**,		3
1199	Intrahemispheric theta rhythm desynchronization impairs working memory. **2017**, 35, 147-158		30
1198	Monotone level-sets on arbitrary meshes without redistancing. **2017**, 146, 74-85		4
1197	Evaluating Stresses Along Horizontal Wells in Unconventional Plays. **2017**,		1
1196	A method for the generation of 3D representative models of granular based materials. *International Journal for Numerical Methods in Engineering*, **2017**, 112, 338-359	2.4	3
1195	Dynamics framework for 2D anisotropic continuum-discrete damage model for progressive localized failure of massive structures. **2017**, 183, 14-26		9
1194	Programming the material point method in Julia. **2017**, 105, 17-29		14
1193	SUAVE: An Open-Source Environment Enabling Unconventional Vehicle Designs through Higher Fidelity. **2017**,		6
1192	Adjoint-based derivative evaluation methods for flexible multibody systems with rotorcraft applications. **2017**,		8

1191	On a family of convected particle domain interpolations in the material point method. **2017**, 126, 50-64		30
1190	Finite-element modelling of elastic wave propagation and scattering within heterogeneous media. **2017**, 473, 20160738		37
1189	Pressure Feedback in the Diffuser of a Ram-RDE Propulsive Device. **2017**,		5
1188	Design sensitivity analysis for shape optimization based on the Lie derivative. **2017**, 317, 702-722		7
1187	Workflow for the integration of a realistic 3D geomodel in process simulations using different cell types and advanced scientific visualization: Variations on a synthetic salt diapir. **2017**, 699, 42-60		1
1186	Nonorthogonal 2.5-D PEEC for Power Integrity Analysis of Package-Board Geometries. **2017**, 65, 1203-1214		3
1185	3D dynamic fragmentation with parallel dynamic insertion of cohesive elements. *International Journal for Numerical Methods in Engineering*, **2017**, 109, 1655-1678	2.4	14
1184	An admissibility and asymptotic preserving scheme for systems of conservation laws with source term on 2D unstructured meshes with high-order MOOD reconstruction. **2017**, 317, 836-867		9
1183	A computational approach to modeling cellular-scale blood flow in complex geometry. **2017**, 334, 280-307		53
1182	Estimating River Conductance from Prior Information to Improve Surface-Subsurface Model Calibration. **2017**, 55, 408-418		13
1181	Projection-based variational multiscale method for incompressible Navier–Stokes equations in time-dependent domains. **2017**, 84, 19-40		2
1180	Isogeometric unstructured tetrahedral and mixed-element Bernstein–Bézier discretizations. **2017**, 319, 83-123		31
1179	A comparison of thermal-hydraulic performance of various fin patterns using 3D CFD simulations. **2017**, 109, 336-356		35
1178	New methods for analyzing transport phenomena in supersonic ejectors. **2017**, 64, 23-40		26
1177	Optimization of well-doublet placement in geothermal reservoirs using numerical simulation and economic analysis. **2017**, 76, 1		21
1176	Numerical analysis and simulation of a bio-thermal model for the human foot. **2017**, 305, 103-116		1
1175	Adaptive and iterative methods for simulations of nanopores with the PNP–Stokes equations. **2017**, 338, 452-476		10
1174	RINGMesh: A programming library for developing mesh-based geomodeling applications. **2017**, 104, 93-100		23

1173	Hybrid Model: Permeance Network and 3-D Finite Element for Modeling Claw-Pole Synchronous Machines. **2017**, 53, 1-4		12
1172	Voronoi cell finite element modelling of the intergranular fracture mechanism in polycrystalline alumina. **2017**, 43, 6967-6975		18
1171	Experimental Measurement and Numerical Simulation of the Screening Current-Induced Field Decay in a Small ReBCO Coil. **2017**, 27, 1-4		15
1170	Automated Quantification of the Impact of Defects on the Mechanical Behavior of Deoxyribonucleic acid Origami Nanoplates. **2017**, 139,		1
1169	Reduced storage nodal discontinuous Galerkin methods on semi-structured prismatic meshes. **2017**, 73, 775-793		1
1168	Solid tumors are poroelastic solids with a chemo-mechanical feedback on growth. **2017**, 129, 107-124		32
1167	Computationally Efficient Boundary Element Methods for High-Frequency Helmholtz Problems in Unbounded Domains. **2017**, 215-243		7
1166	Motion visualization and estimation for flapping wing systems. **2017**, 33, 327-340		7
1165	How significant is the slope of the sea-side boundary for modelling seawater intrusion in coastal aquifers?. **2017**, 551, 648-659		35
1164	Micromagnetic simulation of the influence of grain boundary on cerium substituted Nd-Fe-B magnets. **2017**, 7, 056201		21
1163	Compositional Reservoir Flow Simulation for Organic-Rich Gas Shale. **2017**,		3
1162	A multiscale and multiphysics numerical framework for modelling of hygrothermal ageing in laminated composites. *International Journal for Numerical Methods in Engineering*, **2017**, 112, 360-379	2.4	9
1161	Shape optimization of phononic band gap structures using the homogenization approach. **2017**, 113-114, 147-168		11
1160	An overlapping Domain Decomposition preconditioning method for monolithic solution of shear bands. **2017**, 318, 33-60		4
1159	Multiscale modeling of nonlinear electric conductivity in graphene-reinforced nanocomposites taking into account tunnelling effect. **2017**, 337, 116-131		34
1158	Accelerated Adaptive Surrogate-Based Optimization Through Reduced-Order Modeling. **2017**, 55, 1681-1694		5
1157	Numerical simulations of aerosol delivery to the human lung with an idealized laryngeal model, image-based airway model, and automatic meshing algorithm. **2017**, 148, 1-9		20
1156	Reaction rates for reaction-diffusion kinetics on unstructured meshes. **2017**, 146, 064101		7

1155	The use of magnetic marks in steel wire ropes. **2017**, 177, 012072	6
1154	Dynamic model of open shell structures buried in poroelastic soils. **2017**, 60, 269-288	7
1153	The overlapped radial basis function-finite difference (RBF-FD) method: A generalization of RBF-FD. **2017**, 342, 211-228	27
1152	Modelling hydraulic fractures in porous media using flow cohesive interface elements. **2017**, 225, 68-82	79
1151	Face coloring in unstructured CFD codes. **2017**, 63, 17-37	3
1150	FINITE ELEMENT APPROXIMATION OF A TIME-FRACTIONAL DIFFUSION PROBLEM FOR A DOMAIN WITH A RE-ENTRANT CORNER. **2017**, 59, 61-82	5
1149	Mimicking the loading adaptation of bone microstructure with aluminum foams. **2017**, 126, 207-218	18
1148	Embedded solids of any dimension in the X-FEM. Part I □Building a dedicated P1 function space. **2017**, 130, 80-101	2
1147	Quantification of Arctic Soil and Permafrost Properties Using Ground-Penetrating Radar and Electrical Resistivity Tomography Datasets. **2017**, 10, 4348-4359	12
1146	Spline parameterization method for 2D and 3D geometries based on T-mesh optimization. **2017**, 322, 460-482	8
1145	Stability and convergence of fully discrete Galerkin FEMs for the nonlinear thermistor equations in a nonconvex polygon. **2017**, 136, 383-409	7
1144	Towards quantitative mesh pre-optimization for finite element analysis. **2017**, 14, 392-407	
1143	Shape Optimization of Shell Structure Acoustics. **2017**, 55, 1347-1376	1
1142	Hierarchical Boltzmann simulations and model error estimation. **2017**, 342, 66-84	17
1141	Investigation of fatigue crack incubation and growth in cast MAR-M247 subjected to low cycle fatigue at room temperature. **2017**, 208, 79-96	9
1140	An equivalent stress-gradient regularization model for coupled damage-viscoelasticity. **2017**, 322, 137-166	13
1139	A□ formulation of a mathematical model for the induction hardening process with a nonlinear law for the magnetic field. **2017**, 321, 294-315	10
1138	Conservative discretization of the Landau collision integral. **2017**, 24, 032121	12

1137	Towards industrial large eddy simulation using the FR/CPR method. **2017**, 156, 579-589	20
1136	The scattering of torsional guided waves from Gaussian rough surfaces in pipework. **2017**, 141, 1852	9
1135	HULK – Simple and fast generation of structured hexahedral meshes for improved subsurface simulations. **2017**, 99, 159-170	4
1134	A microfluidic model of hemostasis sensitive to platelet function and coagulation. **2017**, 10, 3-15	36
1133	Metastable states in terminal orientation of hinged symmetric bodies in a flow. **2017**, 111, 19-27	
1132	Reconstructing wave profiles from inundation data. **2017**, 322, 167-186	2
1131	PvT-HADDOC: A multi-axial strain analyzer and cure monitoring device for thermoset composites characterization during manufacturing. **2017**, 101, 129-142	7
1130	Multiscale stress analysis in CFRC using microscope image data of carbon fibres. **2017**, 176, 471-480	4
1129	Multiphysics Modeling of the Atrial Systole under Standard Ablation Strategies. **2017**, 8, 205-218	5
1128	Entropy stable high order discontinuous Galerkin methods with suitable quadrature rules for hyperbolic conservation laws. **2017**, 345, 427-461	98
1127	Study of plasmonic slot waveguides with a nonlinear metamaterial core: semi-analytical and numerical methods. **2017**, 19, 075001	4
1126	Simulation of dam/levee-break hydrodynamics with a three-dimensional implicit unstructured-mesh finite element model. **2017**, 17, 959-979	4
1125	Automatic reconstruction of beam structures from 3D topology optimization results. **2017**, 189, 62-82	11
1124	A framework for 3D synthetic mesoscale models of hot mix asphalt for the finite element method. **2017**, 148, 857-873	16
1123	Numerical quantification of the impact of microstructure on the mechanical behavior of particulate Al/SiC composites in 2D. **2017**, 117, 91-103	3
1122	Applications of the discontinuous Galerkin method to propagating acoustic wave problems. **2017**, 9, 168781401770363	1
1121	A High-Order Time Domain Discontinuous Galerkin Method with Orthogonal Tetrahedral Basis for Electromagnetic Simulations in 3-D Heterogeneous Conductive Media. **2017**, 21, 1065-1089	4
1120	Simulating Flood Waves in Residential Areas. **2017**, 51, 52-57	7

1119	Method for Estimating the Charge Density Distribution on a Dielectric Surface. **2017**, 23, 472-483	
1118	An FEM based framework to simulate semiconductor devices using streamline upwind Petrov-Galerkin stabilization technique. **2017**,	2
1117	A Full High Order Method for Computational AeroAcoustics. **2017**,	
1116	Helical Screech Tone Generation in an Overexpanded Jet. **2017**,	2
1115	Feasibility study and cell design for performing local electrochemical impedance spectroscopy measurements using an atomic force microscopy set-up. **2017**, 245, 173-185	2
1114	Numerical simulation of air pollution due to traffic flow in urban networks. **2017**, 326, 44-61	11
1113	A complete methodology for the mechanical diagnosis of statue provided by innovative uses of 3D model. Application to the imperial marble statue of Alba-la-Romaine (France). **2017**, 28, 109-116	17
1112	GPU-based parallelization for bubble mesh generation. **2017**, 36, 1184-1197	1
1111	The stratification study of public buildings microclimate parameters with supply and exhaust ventilation. **2017**, 106, 06018	
1110	A third order accurate Lagrangian finite element scheme for the computation of generalized molecular stress function fluids. **2017**, 246, 10-20	2
1109	A novel unstructured mesh finite element method for solving the time-space fractional wave equation on a two-dimensional irregular convex domain. **2017**, 20, 352-383	58
1108	High-Order Implicit Large-Eddy Simulations of Flow over a NACA0021 Aerofoil. **2017**, 55, 2186-2197	10
1107	Broken flow symmetry explains the dynamics of small particles in deterministic lateral displacement arrays. **2017**, 114, E5034-E5041	41
1106	Variational inequality approach to enforcing the non-negative constraint for advection–diffusion equations. **2017**, 320, 287-334	15
1105	Multi-domain muffin tin finite element density functional calculations for small molecules. **2017**, 74, 35-44	2
1104	Perfectly matched layers for convex truncated domains with discontinuous Galerkin time domain simulations. **2017**, 73, 684-700	8
1103	A defect corrected finite element approach for the accurate evaluation of magnetic fields on unstructured grids. **2017**, 335, 688-699	3
1102	3D numerical modelling of the propagation of radiative intensity through a X-ray tomographied ligament. **2017**, 194, 86-97	24

1101	A Parallel Finite Element Method for 3D Two-Phase Moving Contact Line Problems in Complex Domains. **2017**, 72, 1119-1145		2
1100	Maximum likelihood estimation of cardiac fiber bundle orientation from arbitrarily spaced diffusion weighted images. **2017**, 39, 56-77		5
1099	An efficient SIMPLER-revised algorithm for incompressible flow with unstructured grids. **2017**, 71, 425-442		10
1098	A unified phase-field theory for the mechanics of damage and quasi-brittle failure. **2017**, 103, 72-99		253
1097	Kinetic Simulation of Spacecraft□Environment Interaction. **2017**, 45, 535-554		23
1096	Rotor Tracking Using Phase of Electrograms Recorded During Atrial Fibrillation. **2017**, 45, 910-923		26
1095	Comparative study of the contribution of various PWR spacer grid components to hydrodynamic and wall pressure characteristics. **2017**, 317, 22-43		8
1094	Mesh Interpolated Krylov Recycling Method to Expedite 3-D Full-Wave MoM Solution for Design Variants. **2017**, 65, 3159-3171		0
1093	A tree-parenchyma coupled model for lung ventilation simulation. **2017**, 33, e2873		10
1092	Guaranteed error bounds in homogenisation: an optimum stochastic approach to preserve the numerical separation of scales. *International Journal for Numerical Methods in Engineering*, **2017**, 110, 103-132	2.4	12
1091	Effect of airflow and material models on tissue displacement for surgical planning of pharyngeal airways in pediatric down syndrome patients. **2017**, 71, 122-135		9
1090	Effects of prefrontal bipolar and high-definition transcranial direct current stimulation on cortical reactivity and working memory in healthy adults. **2017**, 152, 142-157		60
1089	Solving incompressible fluid flows on unstructured meshes with the lattice Boltzmann flux solver. **2017**, 11, 310-327		8
1088	A 3-D numerical heat and mass transfer model for simulating the vibration effects on drying process. **2017**, 46, 1204-1221		4
1087	Three dimensional pressure transient behavior study in stress sensitive reservoirs. **2017**, 152, 204-211		11
1086	A comparison between the XFEM and a boundary-fitted mesh method for the simulation of rigid particles in Cahn□Hilliard fluids. **2017**, 148, 121-136		3
1085	Second kind boundary integral equation for multi-subdomain diffusion problems. **2017**, 43, 1075-1101		6
1084	Influence of mesh non-orthogonality on numerical simulation of buoyant jet flows. **2017**, 314, 326-337		3

1083	Effect of defect size and shape on the high-cycle fatigue behavior. **2017**, 100, 530-539	17
1082	A sequential implicit discrete fracture model for three-dimensional coupled flow-geomechanics problems in naturally fractured porous media. **2017**, 150, 312-322	9
1081	Electromagnetic nonlinearities in a Roebel-cable-based accelerator magnet prototype: variational approach. **2017**, 30, 024008	7
1080	The MOOD method for the non-conservative shallow-water system. **2017**, 145, 99-128	12
1079	A comparison of model reduction techniques based on modal projection for structures with frequency-dependent damping. **2017**, 90, 110-125	34
1078	Conforming to interface structured adaptive mesh refinement: New technique for the automated modeling of materials with complex microstructures. **2017**, 125, 24-40	24
1077	A graph-based method for calculating draping strategies for the application of fiber-reinforced materials on arbitrary surfaces. **2017**, 162, 123-132	1
1076	TerraFERMA: The Transparent Finite Element Rapid Model Assembler for multiphysics problems in Earth sciences. **2017**, 18, 769-810	14
1075	High-resolution data assimilation of cardiac mechanics applied to a dyssynchronous ventricle. **2017**, 33, e2863	10
1074	Optimization of RF multipole ion trap geometries. **2017**, 332, 124-133	7
1073	Analysis of Direct-On-Line Synchronous Reluctance Machine Start-Up Using a Magnetic Field Decomposition. **2017**, 53, 1852-1859	25
1072	Phase diagram of elastic spheres. **2017**, 13, 1463-1471	14
1071	Kinetic modeling of Langmuir probe characteristics in a laboratory plasma near a conducting body. **2017**, 24, 012901	1
1070	A computational model of the effect of capillary density variability on oxygen transport, glucose uptake, and insulin sensitivity in prediabetes. **2017**, 24, e12342	5
1069	A Numerical Model of an Acoustic Metamaterial Using the Boundary Element Method Including Viscous and Thermal Losses. **2017**, 25, 1750006	17
1068	Computational Modeling of Arc–Slag Interaction in DC Furnaces. **2017**, 69, 351-357	5
1067	A sixth-order finite volume method for diffusion problem with curved boundaries. **2017**, 42, 401-422	9
1066	Numerical simulation of nanocrystal synthesis in a microfluidic reactor. **2017**, 96, 128-138	4

1065 Linear instability of low Reynolds number massively separated flow around three NACA airfoils. **2017**, 811, 701-741 33

1064 Design of a next generation framework for MEMS devices. **2017**,

1063 Sound attenuation optimization using metaporous materials tuned on exceptional points. **2017**, 142, 2288 30

1062 Optimal Constrained Interpolation in Mesh-Adaptive Finite Element Modeling. **2017**, 39, A2257-A2286 2

1061 Specular reflection treatment for the 3D radiative transfer equation solved with the discrete ordinates method. **2017**, 334, 541-572 14

1060 A variationally bounded scheme for delayed detached eddy simulation: Application to vortex-induced vibration of offshore riser. **2017**, 157, 84-111 16

1059 Constitutive law for thermally-activated plasticity of recrystallized tungsten. **2017**, 496, 325-332 7

1058 A multiscale imaging and modelling dataset of the human inner ear. **2017**, 4, 170132 19

1057 Uncertainties in the 2004 Sumatra-Andaman source through nonlinear stochastic inversion of tsunami waves. **2017**, 473, 20170353 9

1056 Combining Plane Wave Expansion and Variational Techniques for Fast Phononic Computations. **2017**, 143, 04017141 3

1055 Aerodynamic Shape Optimization Using Feature based CAD Systems and Adjoint Methods. **2017**, 1

1054 Generation of surface acoustic waves on doped semiconductor substrates. **2017**, 50, 484004 4

1053 3-D DC resistivity modelling with arbitrary long electrode sources using finite element method on unstructured grids. **2017**, 211, 1162-1176 9

1052 Micro-structured materials: Inhomogeneities and imperfect interfaces in plane micropolar elasticity, a boundary element approach. **2017**, 83, 195-203 9

1051 An enhanced-strain error estimator for Galerkin meshfree methods based on stabilized conforming nodal integration. **2017**, 74, 2144-2171 7

1050 Instability in a channel with grooves parallel to the flow. **2017**, 29, 084104 17

1049 Airfoil geometry converter: From Selig and Lednicer to GEO and mesh formats. **2017**, 1

1048 Phonon bottleneck identification in disordered nanoporous materials. **2017**, 96, 13

1047	Postinjection Normal Closure of Fractures as a Mechanism for Induced Seismicity. **2017**, 44, 9598-9606	17
1046	Modal analysis for the assessment of cementless hip stem primary stability in preoperative THA planning. **2017**, 49, 79-88	4
1045	Giant magnetoresistance in lateral metallic nanostructures for spintronic applications. **2017**, 7, 9553	10
1044	Brightness Temperature Computation of Microwave Calibration Targets. **2017**, 55, 7104-7112	12
1043	Reliable Multidisciplinary Design of a Supersonic Nozzle Using Multifidelity Surrogates. **2017**,	5
1042	Bragg Coherent Diffractive Imaging of Zinc Oxide Acoustic Phonons at Picosecond Timescales. **2017**, 7, 9823	11
1041	Shock-conforming mesh generation for aerodynamic analyses at supersonic regimes. **2017**, 157, 276-293	
1040	An efficient finite element method for simulation of droplet spreading on a topologically rough surface. **2017**, 349, 233-252	13
1039	A method to determine the constitutive parameters of oxide in accelerated corrosion tests of reinforced concrete specimens. **2017**, 101, 68-81	11
1038	Parallel implementation of a Lagrangian-based model on an adaptive mesh in C++: Application to sea-ice. **2017**, 350, 84-96	6
1037	High Order Schemes for Hyperbolic Problems Using Globally Continuous Approximation and Avoiding Mass Matrices. **2017**, 73, 461-494	21
1036	Development of a Three-Dimensional Unstructured Mesh Finite-Element Model for Flood Propagation. **2017**, 143, 04017042	1
1035	Temperature heterogeneity over leaf surfaces: the contribution of the lamina microtopography. **2017**, 40, 2174-2188	19
1034	Development of a Virtual Cell Model to Predict Cell Response to Substrate Topography. **2017**, 11, 9084-9092	26
1033	Investigation of photoionization in the exhaust jet of a high-velocity oxy-fuel system toward application to MHD power generation. **2017**,	
1032	Validation of a mathematical model for laser-induced thermotherapy in liver tissue. **2017**, 32, 1399-1409	18
1031	Numerical Simulation of a Radiant Floor Cooling Office Based on CFD-BES Coupling and FEM. **2017**, 105, 3577-3583	4
1030	Calculated ventilation and effort distribution as a measure of respiratory disease and Heliox effectiveness. **2017**, 60, 100-109	8

1029	From analog timers to the era of machine learning: The case of the transient hot-wire technique. **2017**,	
1028	Viscothermal Losses in Double-Negative Acoustic Metamaterials. **2017**, 8,	32
1027	Improving the seismic small-scale modelling by comparison with numerical methods. **2017**, 211, 637-649	10
1026	Secure 3D Printing. **2017**,	11
1025	Multigroup neutron diffusion equation with the finite volume method in reactors using MOX fuels. **2017**, 54, 1251-1260	2
1024	Process Chain for the Fabrication of a Custom 3D Barrier for Guided Bone Regeneration. **2017**, 65, 151-156	1
1023	On volumetric locking in a hybrid symmetric interior penalty method for nearly incompressible linear elasticity on polygonal meshes. **2017**, 34, 373-406	2
1022	Reduced order modelling for efficient numerical optimisation of a hot-wall chemical vapour deposition reactor. **2017**, 27, 1602-1622	6
1021	pyGIMLi: An open-source library for modelling and inversion in geophysics. **2017**, 109, 106-123	108
1020	Towards consistent numerical analyses of embankments on soft soils. **2017**, 1-19	4
1019	On Orienting Edges of Unstructured Two- and Three-Dimensional Meshes. **2017**, 44, 1-22	6
1018	Slow nonisothermal flows: Numerical and asymptotic analysis of the Boltzmann equation. **2017**, 57, 1201-1224	2
1017	Evaluation of a Directive-Based GPU Programming Approach for High-Order Unstructured Mesh Computational Fluid Dynamics. **2017**,	0
1016	Acousto-electric transport in MgO/ZnO-covered graphene on SiC. **2017**, 50, 464008	6
1015	Weight-Adjusted Discontinuous Galerkin Methods: Curvilinear Meshes. **2017**, 39, A2395-A2421	14
1014	A Smooth Partition of Unity Finite Element Method for Vortex Particle Regularization. **2017**, 39, A2345-A2364	2
1013	A discrete fracture model for two-phase flow in fractured porous media. **2017**, 110, 335-348	54
1012	Provably Robust Directional Vertex Relaxation for Geometric Mesh Optimization. **2017**, 39, A2438-A2471	6

1011	Extreme scale multi-physics simulations of the tsunamigenic 2004 sumatra megathrust earthquake. **2017**,	31
1010	Electroluminescence collection cell as a readout for a high energy resolution Xenon gas TPC. **2017**, 875, 185-192	9
1009	A Two-Grid Vector Discretization Scheme for the Resonant Cavity Problem With Anisotropic Media. **2017**, 65, 2719-2725	12
1008	Direct numerical simulation of a bubble suspension in small amplitude oscillatory shear flow. **2017**, 56, 555-565	7
1007	Localization landscape theory of disorder in semiconductors. III. Application to carrier transport and recombination in light emitting diodes. **2017**, 95,	68
1006	Solution of the Inverse Bioheat Transfer Problem for the Detection of Tumors by Genetic Algorithms. **2017**, 441-452	1
1005	MRI-based electric properties tomography with a quasi-Newton approach. **2017**, 33, 105004	11
1004	The PHASTA Science Gateway. **2017**,	1
1003	Influence of corrosion rate on the mechanical interaction of reinforcing steel, oxide and concrete. **2017**, 50, 1	3
1002	Description and assessment of the new ONERA 2D icing suite IGLOO2D. **2017**,	18
1001	A Coupling Between the Facet Finite Element and Reluctance Network Methods in 3-D. **2017**, 53, 1-10	1
1000	BioPARR: A software system for estimating the rupture potential index for abdominal aortic aneurysms. **2017**, 7, 4641	34
999	On the use of a diffuse-interface model for the simulation of rigid particles in two-phase Newtonian and viscoelastic fluids. **2017**, 156, 81-96	5
998	A surrogate-model assisted approach for optimising the size of tidal turbine arrays. **2017**, 19, 357-373	6
997	High-Order Meshes for Flow Simulations with a Spectral Difference Method. **2017**,	
996	Space charge deposition in tubular channel ferroelectrets: A combined fluorescence imaging/LIMM study with finite element analysis. **2017**, 121, 244103	7
995	Numerical Simulation of Mutual Capacitance Touch Screens for Ungrounded Objects. **2017**, 17, 5143-5152	7
994	Implementation of boundary conditions in pressure-based finite volume methods on unstructured grids. **2017**, 72, 82-107	5

993	A parametric multi-scale, multiphysics numerical investigation in a casting process for Al-Si alloy and a macroscopic approach for prediction of ECT and CET events. **2017**, 113, 386-412		10
992	Propagation of material and surface profile uncertainties on MEMS micro-resonators using a stochastic second-order computational multi-scale approach. *International Journal for Numerical Methods in Engineering*, **2017**, 111, 26-68	2.4	6
991	3D characterization and modeling of low cycle fatigue damage mechanisms at high temperature in a cast aluminum alloy. **2017**, 123, 24-34		76
990	Nonlinear waves in lattice materials: Adaptively augmented directivity and functionality enhancement by modal mixing. **2017**, 99, 272-288		21
989	An analytic solution to the coupled pressure–temperature equations for modeling of photoacoustic trace gas sensors. **2017**, 103, 173-193		4
988	Towards ultra-high ductility TRIP-assisted multiphase steels controlled by strain gradient plasticity effects. **2017**, 98, 201-221		7
987	A micromechanics approach for effective elastic properties of nano-composites with energetic surfaces/interfaces. **2017**, 159, 278-287		13
986	AXEL– high pressure xenon gas TPC for neutrinoless double beta decay search. **2017**, 845, 394-397		5
985	Verification, validation and application of NEPTUNE_CFD to two-phase Pressurized Thermal Shocks. **2017**, 312, 74-85		7
984	On some practical issues concerning the implementation of Cahn–Hilliard–Navier–Stokes type models. **2017**, 9, 30-39		1
983	Automatic construction of subject-specific human airway geometry including trifurcations based on a CT-segmented airway skeleton and surface. **2017**, 16, 583-596		21
982	A two-level multithreaded Delaunay kernel. **2017**, 85, 2-9		11
981	A Numerical Framework for Wall Dissolution Modeling. **2017**, 49, 657-675		2
980	Nonconformal mesh-based finite element strategy for 3D textile composites. **2017**, 51, 2315-2330		11
979	Development of GEM detector for plasma diagnostics application: simulations addressing optimization of its performance. **2017**, 12, C12034-C12034		4
978	Numerical analysis of fractional-in-space FitzHugh Nagumo model with finite volume method. **2017**,		
977	Assessment of the Robustness of a Fixtureless Inspection Method for Nonrigid Parts Based on a Verification and Validation Approach. **2017**, 2,		3
976	A critical analysis of some popular methods for the discretisation of the gradient operator in finite volume methods. **2017**, 29, 127103		36

975	Finite element code FENIA verification and application for 3D modelling of thermal state of radioactive waste deep geological repository. **2017**, 891, 012174	
974	Direct Numerical Simulation of Cellular-Scale Blood Flow in 3D Microvascular Networks. **2017**, 113, 2815-2826	42
973	An acoustic glottal source for vocal tract physical models. **2017**, 28, 115902	2
972	Algorithmic Aspects of Multigrid Methods for Optimization in Shape Spaces. **2017**, 39, B1156-B1177	17
971	Coarse Mesh Partitioning for Tree-Based AMR. **2017**, 39, C364-C392	2
970	Comparison of 2D boundary curving methods with modal shape functions and a piecewise linear target mesh. **2017**, 203, 91-101	7
969	Computing cross fields A PDE approach based on the Ginzburg-Landau theory. **2017**, 203, 219-231	7
968	Robust and efficient validation of the linear hexahedral element. **2017**, 203, 271-283	8
967	All-Quad Meshing for Geographic Data via Templated Boundary Optimization. **2017**, 203, 388-400	
966	Multiscale Model of Concrete Failure. **2017**, 99-122	
965	A Methodology to Reconstruct Large Damaged Regions in Heritage Structures. **2017**, 149-170	
964	Image Conditions for Spherical-Coordinate Separation-of-Variables Acoustic Multiple Scattering Models with Perfectly-Reflecting Flat Surfaces. **2017**, 70, 419-453	3
963	Study of a GaAs:Cr-based Timepix detector using synchrotron facility. **2017**, 12, P11009-P11009	4
962	The use of a simple model in the inverse characterization of cardiac ischemic regions. **2017**, 25,	
961	Design and evaluation of a low-cost mechatronic system to study upper and lower limbs biomechanics. **2017**,	1
960	Design of a FEM based simulator for MEMS devices. **2017**,	
959	Development of a didactic set of 3D-FEM magnetostatic simulations by using a free software. **2017**,	2
958	3D electromagnetic diffusion models for reverberant environments. **2017**,	

957	Computationally efficient standard-cell FEM-based thermal analysis. **2017**,	0
956	Modeling challenging EMC problems. **2017**, 6, 45-54	4
955	. **2017**, 64, 4897-4903	3
954	Variational modelling of extreme waves through oblique interaction of solitary waves: application to Mach reflection. **2017**, 24, 43-60	6
953	Manufacturing processes for braided composite materials. **2017**, 47-153	3
952	Particle-In-Cell Modeling of CubeSat Interaction with Ionospheric Plasma. **2017**, 13, 162-166	0
951	Transverse permeability determination and influence in resin flow through an orthotropic medium in the RTM process. **2017**, 22,	2
950	Accurate Simulation of Parametrically Excited Micromirrors via Direct Computation of the Electrostatic Stiffness. **2017**, 17,	7
949	Sintering of Two Viscoelastic Particles: A Computational Approach. **2017**, 7, 516	12
948	Corrected Four-Sphere Head Model for EEG Signals. **2017**, 11, 490	15
947	Multi-Scale Computational Models for Electrical Brain Stimulation. **2017**, 11, 515	16
946	Anodal tDCS Over the Left DLPFC Did Not Affect the Encoding and Retrieval of Verbal Declarative Information. **2017**, 11, 452	13
945	JIGSAW-GEO (1.0): locally orthogonal staggered unstructured grid generation for general circulation modelling on the sphere. **2017**, 10, 2117-2140	22
944	Measurement of the directional sensitivity of Dark Matter Time Projection Chamber detectors. **2017**, 95,	16
943	A two dimensional electromechanical model of a cardiomyocyte to assess intra-cellular regional mechanical heterogeneities. **2017**, 12, e0182915	2
942	Computer technologies for adaptive mesh generation in SIGMA preprocessor. **2017**,	1
941	Ice bridges and ridges in the Maxwell-EB sea ice rheology. **2017**, 11, 2033-2058	12
940	Application of a two-step approach for mapping ice thickness to various glacier types on Svalbard. **2017**, 11, 2003-2032	17

939	Using MCBEND for neutron or gamma-ray deterministic calculations. **2017**, 153, 06032	
938	Simulation of DLA grating structures in the frequency domain. **2017**, 874, 012040	4
937	Adaptive CFD schemes for aerospace propulsion. **2017**, 841, 012017	3
936	Modeling the neuroanatomic propagation of ALS in the spinal cord. **2017**,	
935	A Deep Penetration Problem Calculation Using AETIUS:An Easy Modeling Discrete Ordinates Transport Code UsIng Unstructured Tetrahedral Mesh, Shared Memory Parallel. **2017**, 153, 06025	1
934	Modeling the neuroanatomic propagation of ALS in the spinal cord. **2017**,	
933	Spectral Element and hp Methods. **2017**, 1-43	1
932	A computational continuum model of poroelastic beds. **2017**, 473, 20160932	9
931	Initiation of a major calving event on the Bowdoin Glacier captured by UAV photogrammetry. **2017**, 11, 911-921	28
930	A multiscale active structural model of the arterial wall accounting for smooth muscle dynamics. **2018**, 15,	6
929	A comparison of refinement indicators for p-adaptive discontinuous Galerkin methods for the Euler and Navier-Stokes equations. **2018**,	2
928	Topology-optimized dual-polarization Dirac cones. **2018**, 97,	13
927	Achieving pervasive fracture and fragmentation in three-dimensions: an unstructuring-based approach. **2018**, 210, 113-136	4
926	A Review on Tumor-Treating Fields (TTFields): Clinical Implications Inferred From Computational Modeling. **2018**, 11, 195-207	40
925	Control of vortex-induced motion in multi-column offshore platform by near-wake jets. **2018**, 167, 111-128	10
924	Rapid calculation of maximum particle lifetime for diffusion in complex geometries. **2018**, 148, 094113	3
923	On the homogenization of the acoustic wave propagation in perforated ducts of finite length for an inviscid and a viscous model. **2018**, 474, 20170708	1
922	Spectral/hp element methods: Recent developments, applications, and perspectives. **2018**, 30, 1-22	48

921	Earthquake soil-structure interaction of nuclear power plants, differences in response to 3-D, 3 -D, and 1-D excitations. **2018**, 47, 1478-1495		21
920	A reduced-basis element method for pin-by-pin reactor core calculations in diffusion andSP3approximations. **2018**, 116, 195-209		6
919	Calculation of multiple eigenvalues of the neutron diffusion equation discretized with a parallelized finite volume method. **2018**, 105, 271-278		
918	Modeling the poroelastic response to megathrust earthquakes: A look at the 2012 Mw 7.6 Costa Rican event. **2018**, 114, 236-248		7
917	A positivity preserving and conservative variational scheme for phase-field modeling of two-phase flows. **2018**, 360, 137-166		29
916	Discontinuous Galerkin modeling of the Columbia River coupled estuary-plume dynamics. **2018**, 124, 111-124		12
915	Fused-data transrectal EIT for prostate cancer imaging. **2018**, 39, 054005		6
914	Numerical Simulation of Molten Flow in Directed Energy Deposition Using an Iterative Geometry Technique. **2018**, 5, 113-132		3
913	Quantitative diffusion measurements using the open-source software PyFRAP. **2018**, 9, 1582		18
912	Combining Multiphase Groundwater Flow and Slope Stability Models to Assess Stratovolcano Flank Collapse in the Cascade Range. **2018**, 123, 2787-2805		14
911	Three-Dimensional Numerical Modeling of Shear Stimulation of Fractured Reservoirs. **2018**, 123, 3891-3908		17
910	Modeling flow in porous media with double porosity/permeability: A stabilized mixed formulation, error analysis, and numerical solutions. **2018**, 337, 632-676		13
909	Micromagnetic simulation of static magnetic properties and tuning of anisotropy strength in two dimensional square antidot elements. **2018**,		
908	TiOxdeposited by magnetron sputtering: a joint modelling and experimental study. **2018**, 51, 195202		17
907	Laminar flow and heat transfer in U-bends: The effect of secondary flows in ducts with partial and full curvature. **2018**, 130, 70-93		10
906	A metamodel-based optimization approach to reduce the weight of composite laminated wind turbine blades. **2018**, 194, 345-356		20
905	A monolithic, mortar-based interface coupling and solution scheme for finite element simulations of lithium-ion cells. *International Journal for Numerical Methods in Engineering*, **2018**, 114, 1411-1437	2.4	7
904	Aerodynamic Design of Aircraft Engine Nozzles with Consideration of Model Form Uncertainties. **2018**,		

903	Image conditions for polar and cylindrical coordinate separation-of-variables acoustic multiple scattering models with perfectly reflecting flat boundaries. **2018**, 71, 273-296	3
902	On micromechanical parameter identification with integrated DIC and the role of accuracy in kinematic boundary conditions. **2018**, 146, 241-259	7
901	A unified continuum and variational multiscale formulation for fluids, solids, and fluid-structure interaction. **2018**, 337, 549-597	20
900	Accelerating high-order mesh optimisation with an architecture-independent programming model. **2018**, 229, 36-53	6
899	Modelling of the mechanical behavior of polyurethane foams by means of micromechanical characterization and computational homogenization. **2018**, 146, 154-166	30
898	Identification of mesoscale model parameters for brick-masonry. **2018**, 146, 224-240	29
897	The deformation fields method revisited: Stable simulation of instationary viscoelastic fluid flow using integral models. **2018**, 262, 68-78	6
896	Elastic constants of achiral single-wall CNTs: Analytical expressions and a focus on size and small scale effects. **2018**, 147, 207-226	9
895	The role of defects and critical pore size analysis in the fatigue response of additively manufactured IN718 via crystal plasticity. **2018**, 150, 139-153	63
894	Modal analysis of the ultrahigh finesse Haroche QED cavity. **2018**, 20, 043058	0
893	Unstructured mesh finite difference/finite element method for the 2D time-space Riesz fractional diffusion equation on irregular convex domains. **2018**, 59, 441-463	42
892	Computational Modeling of Wound Suture: A Review. **2018**, 11, 165-176	12
891	User Interface Design Recommendations Through Multi-Criteria Decision Analysis. **2018**, 269-293	2
890	magnetization/heating electron holography to study the magnetic ordering in arrays of nickel metallic nanowires. **2018**, 8, 056813	6
889	Multiple crack detection in 3D using a stable XFEM and global optimization. **2018**, 62, 835-852	29
888	Numerical simulation of oxidation processes in a cross-flow around tube bundles. **2018**, 59, 251-271	11
887	Reduced order models for dynamic behavior of elastomer damping devices. **2018**, 143, 66-75	6
886	Distribution of Current Density, Temperature, and Mechanical Deformation in YBCO Bulks Under Field-Cooling Magnetization. **2018**, 28, 1-5	5

885	Relevance of soil-pile tangential tractions for the estimation of kinematic seismic forces: Formulation and setting of a Winkler approach. **2018**, 59, 1-19	4
884	Coupled unstructured fine-mesh neutronics and thermal-hydraulics methodology using open software: A proof-of-concept. **2018**, 115, 173-185	5
883	Optimization of edge state velocity in the integer quantum Hall regime. **2018**, 97,	7
882	Surface roughness effects on contact line motion with small capillary number. **2018**, 30, 012106	23
881	X-ray computed tomography comparison of individual and parallel assembled commercial lithium iron phosphate batteries at end of life after high rate cycling. **2018**, 381, 46-55	25
880	Solutions for General-Purpose Electromagnetic Problems Using the Random Auxiliary Sources Method. **2018**, 66, 1947-1956	4
879	An Efficient ELLAM Implementation for Modeling Solute Transport in Fractured Porous Media. **2018**, 229, 1	4
878	Electrical Resistivity Tomography using a finite element based BFGS algorithm with algebraic multigrid preconditioning. **2018**, 212, 2073-2087	9
877	A Full-Stokes 3-D Calving Model Applied to a Large Greenlandic Glacier. **2018**, 123, 410-432	38
876	Effective transient behaviour of inclusions in diffusion problems. **2018**, 98, 981-998	2
875	Characterization of the Wake past a Two-dimensional Multi-body Cylinder Arrangement. **2018**,	0
874	Efficient Large-Scale Thermoelastic Topology Optimization of CAD Geometry with Automated Adaptive Mesh Generation. **2018**,	3
873	Fluid Flow and Distributive Mixing Analysis in the Cavity Transfer Mixer. **2018**, 27, 1700075	3
872	Towards a Unified Finite Element Method for the Stokes Equations. **2018**, 40, A130-A141	8
871	A web-based application for automated quantification of chemical gradients induced in microfluidic devices. **2018**, 95, 118-128	2
870	Numerical and experimental evidence of the Fabri-choking in a supersonic ejector. **2018**, 69, 194-209	33
869	Probing spin helical surface states in topological HgTe nanowires. **2018**, 97,	32
868	Modeling shape selection of buckled dielectric elastomers. **2018**, 123, 065102	3

867	State estimation problems in PRF-shift magnetic resonance thermometry. **2018**, 28, 315-335	1
866	Optimization Study of Shrouded Horizontal Axis Wind Turbine. **2018**,	4
865	Finite Element Approximation of the Spectrum of the Curl Operator in a Multiply Connected Domain. **2018**, 18, 1493-1533	4
864	A real-time and registration-free framework for dynamic shape instantiation. **2018**, 44, 86-97	8
863	Mixed convection around a tilted cuboid with an isothermal sidewall at moderate Reynolds numbers. **2018**, 119, 418-432	14
862	Perturbation of theta-gamma coupling at the temporal lobe hinders verbal declarative memory. **2018**, 11, 509-517	22
861	AETIUS solutions for Kobayashi 3D benchmarks with the first collision source method on the volume source and unstructured tetrahedral mesh. **2018**, 113, 446-469	5
860	Tetrahedral mesh improvement using moving mesh smoothing, lazy searching flips, and ´RBF surface reconstruction. **2018**, 103, 2-13	7
859	A sensitivity study of the Navier□Stokes-□model. **2018**, 75, 666-689	4
858	Modeling and simulation of an acoustic well stimulation method. **2018**, 77, 214-228	4
857	Evaluating the reliability of time series analysis to estimate variable riparian travel times by numerical groundwater modelling. **2018**, 32, 408-420	7
856	A reconstructed discontinuous Galerkin method for compressible turbulent flows on 3D curved grids. **2018**, 160, 26-41	9
855	Efficient sparse matrix-delayed vector multiplication for discretized neural field model. **2018**, 74, 1863-1884	
854	MAST: An Open-Source Computational Framework for Design of Multiphysics Systems. **2018**,	4
853	Architecture of a mammalian glomerular domain revealed by novel volume electroporation using nanoengineered microelectrodes. **2018**, 9, 183	16
852	An Algebraic Wall-Model for Large Eddy Simulation With the FR/CPR Method. **2018**,	
851	Fracture of solar-grade anisotropic polycrystalline Silicon: A combined phase field□ohesive zone model approach. **2018**, 330, 123-148	44
850	Simulation of particle size segregation in a pharmaceutical tablet press lab-scale gravity feeder. **2018**, 29, 765-780	20

849	A Boundary Algebraic Formulation for Plane Strain Elastodynamic Scattering. **2018**, 78, 1256-1282	
848	A Shape Optimization Algorithm for Interface Identification Allowing Topological Changes. **2018**, 177, 306-328	
847	Stability analysis of the onset of vortex shedding for wakes behind flat plates. **2018**, 32, 411-423	1
846	Adapting and optimising Fluidity for high-fidelity coastal modelling. **2018**, 168, 46-53	1
845	Numerical and analytic modelling of elastodynamic scattering within polycrystalline materials. **2018**, 143, 2394	24
844	A finite element approach for the calculation of self and mutual radiation impedances of resonators. **2018**, 143, 2449	4
843	Nematic colloidal knots in topological environments. **2018**, 14, 4935-4945	3
842	Efficient computation of the minimum of shape quality measures on curvilinear finite elements. **2018**, 103, 24-33	2
841	Vectorial finite elements for solving the radiative transfer equation. **2018**, 212, 59-74	9
840	Second-kind integral equations for the Laplace-Beltrami problem on surfaces in three dimensions. **2018**, 44, 1385-1409	6
839	The Unstructured Mesh Finite Element Method for the Two-Dimensional Multi-term Time–Space Fractional Diffusion-Wave Equation on an Irregular Convex Domain. **2018**, 77, 27-52	26
838	Micromagnetics of rare-earth efficient permanent magnets. **2018**, 51, 193002	48
837	Solving 3-D PDEs by Tensor B-Spline Methodology: A High Performance Approach Applied to Optical Diffusion Tomography. **2018**, 37, 2115-2125	
836	Variational-based higher-order accurate energy–momentum schemes for thermo-viscoelastic fiber-reinforced continua. **2018**, 336, 353-418	5
835	The discontinuous Galerkin spectral element methods for compressible flows on two-dimensional mixed grids. **2018**, 364, 314-346	6
834	Automatic skull segmentation from MR images for realistic volume conductor models of the head: Assessment of the state-of-the-art. **2018**, 174, 587-598	102
833	Unstructured mesh adaptivity for urban flooding modelling. **2018**, 560, 354-363	23
832	Upscaling permeability for three-dimensional fractured porous rocks with the multiple boundary method. **2018**, 26, 1903-1916	13

831	Human Stem Cell Derived Osteocytes in Bone-on-Chip. **2018**, 3, 1443-1455		2
830	Efficient estimation of personalized biventricular mechanical function employing gradient-based optimization. **2018**, 34, e2982		21
829	Conforming to interface structured adaptive mesh refinement: 3D algorithm and implementation. **2018**, 62, 1213-1238		17
828	Symmetry difference electrical impedance tomography-a novel modality for anomaly detection. **2018**, 39, 044007		3
827	Nonlinear Shape-Manifold Learning Approach: Concepts, Tools and Applications. **2018**, 25, 1-21		16
826	Minimizing Artificial Stiffness in Linear Tetrahedral Element Using Virtual Mesh Refinement. **2018**, 34, 291-297		0
825	Numerical modeling of strain localization in engineering ductile materials combining cohesive models and X-FEM. **2018**, 14, 177-193		8
824	Axial-field eddy-current coupling: a 3D test problem for numerical experiments. **2018**, 31, e2217		2
823	On the use of a high-order discontinuous Galerkin method for DNS and LES of wall-bounded turbulence. **2018**, 176, 320-337		17
822	The ICVSIE: A General Purpose Integral Equation Method for Bio-Electromagnetic Analysis. **2018**, 65, 565-574		15
821	A non-local approach to model the combined effects of forging defects and shot-peening on the fatigue strength of a pearlitic steel. **2018**, 93, 19-32		7
820	Automatic construction of structural CAD models from 3D topology optimization. **2018**, 15, 107-121		9
819	Parametric design velocity computation for CAD-based design optimization using adjoint methods. **2018**, 34, 225-239		13
818	A damage to crack transition model accounting for stress triaxiality formulated in a hybrid nonlocal implicit discontinuous Galerkin-cohesive band model framework. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 374-410	2.4	15
817	Stable 3D XFEM/vector level sets for non-planar 3D crack propagation and comparison of enrichment schemes. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 252-276	2.4	41
816	Contributions of Kinetic Energy and Viscous Dissipation to Airway Resistance in Pulmonary Inspiratory and Expiratory Airflows in Successive Symmetric Airway Models With Various Bifurcation Angles. **2018**, 140,		7
815	Mixing processes in the cavity transfer mixer: A thorough study. **2018**, 64, 1034-1048		6
814	A discontinuous Galerkin method for non-linear electro-thermo-mechanical problems: application to shape memory composite materials. **2018**, 53, 1357-1401		3

813	Multiphase transient analysis for monitoring of CO2 flooding. **2018**, 160, 537-554	4
812	Semi-analytical representation of the activation level in stress fibre directions as alternative to the angular representation in the bio-chemo-mechanical model for cell contractility. **2018**, 77, 527-533	2
811	High-accuracy phase-field models for brittle fracture based on a new family of degradation functions. **2018**, 111, 458-489	87
810	Analysis of the local temperature distribution in color conversion elements of phosphor converted light-emitting diodes. **2018**, 116, 1096-1107	2
809	Numerical analysis of fragmentation in tempered glass with parallel dynamic insertion of cohesive elements. **2018**, 188, 448-469	16
808	Efficient unstructured mesh generation for marine renewable energy applications. **2018**, 116, 842-856	26
807	Finite element modeling on the effect of intra-granular porosity on the dielectric properties of BaTiO3 MLCCs. **2018**, 101, 1211-1220	21
806	Scalable domain decomposition solvers for stochastic PDEs in high performance computing. **2018**, 335, 194-222	4
805	Evaluation of a 3D unstructured-mesh finite element model for dam-break floods. **2018**, 160, 64-77	2
804	Imperfect interfaces with graded materials and unilateral conditions: theoretical and numerical study. **2018**, 23, 445-460	6
803	Comparison of Anisotropic Models to Simulate the Mechanical Response of Facial Skin. **2018**, 43-55	1
802	Nano-structured platinum group metal-free catalysts and their integration in fuel cell electrode architectures. **2018**, 237, 1139-1147	46
801	A 2D multi-term time and space fractional Bloch-Torrey model based on bilinear rectangular finite elements. **2018**, 56, 270-286	24
800	Buckling analysis of geometrically nonlinear curved beams. **2018**, 340, 653-663	9
799	DNS and LES of the Flow Over Periodic Hills Based on a Discontinuous Galerkin Approach. **2018**, 27-40	
798	A discontinuous Galerkin method for the mono-energetic Fokker–Planck equation based on a spherical interior penalty formulation. **2018**, 330, 253-267	4
797	Gaseous and dual-phase time projection chambers for imaging rare processes. **2018**, 878, 200-255	26
796	Anisotropy and hysteretic behavior of single-crystal Fe triangular nanomagnets. **2018**, 549, 35-39	3

795	Software Requirements and Installation. **2018**, 15-23		
794	A non-iterative local remeshing approach for simulating moving boundary transient diffusion problems. **2018**, 140, 23-37		7
793	A CFD assisted segmented control volume based heat exchanger model for simulation of air-to-refrigerant heat exchanger with air flow mal-distribution. **2018**, 131, 230-243		11
792	Nanoscale Switching of Near-Infrared Hot Spots in Plasmonic Oligomers Probed by Two-Photon Absorption in Photopolymers. **2018**, 5, 918-928		12
791	Consistent Class A & C predictions of the Ballina test embankment. **2018**, 93, 75-86		10
790	The far reach of ice-shelf thinning in Antarctica. **2018**, 8, 53-57		98
789	A numerical study of tides in Titan?s northern seas, Kraken and Ligeia Maria. **2018**, 310, 105-126		4
788	Enhanced spin wave propagation in magnonic rings by bias field modulation. **2018**, 8, 056006		1
787	Solution map analysis of a multiscale Drift□Diffusion model for organic solar cells. **2018**, 331, 281-308		2
786	Structural response predictions compared to material property estimates for structural integrity assessment under operational uncertainty. **2018**, 196, 49-62		
785	Computational certification under limited experiments. *International Journal for Numerical Methods in Engineering*, **2018**, 114, 172-195	2.4	7
784	Very high-order accurate finite volume scheme on curved boundaries for the two-dimensional steady-state convection□diffusion equation with Dirichlet condition. **2018**, 54, 752-767		9
783	Simultaneous ply-order, ply-number and ply-drop optimization of laminate wind turbine blades using the inverse finite element method. **2018**, 184, 894-903		25
782	3-D mesoscale simulation of crack-permeability coupling in the Brazilian splitting test. **2018**, 42, 449-468		7
781	Novel simulation method of space charge effects in electron optical systems including emission of electrons. **2018**, 184, 66-76		
780	Local phase transitions in driven colloidal suspensions. **2018**, 116, 378-387		3
779	Ground effects on the stability of separated flow around a NACA 4415 airfoil at low Reynolds numbers. **2018**, 72, 63-76		19
778	Geothermal potential assessment of the Nevado del Ruiz volcano based on rock thermal conductivity measurements and numerical modeling of heat transfer. **2018**, 81, 153-164		9

777	Use of small scale electrical resistivity tomography to identify soil-root interactions during deficit irrigation. **2018**, 556, 310-324		32
776	A step-by-step review on patient-specific biomechanical finite element models for breast MRI to x-ray mammography registration. **2018**, 45, e6-e31		16
775	Numerical study of forced roll oscillation of FPSO with bilge keel. **2018**, 147, 304-317		5
774	Topology optimization of steady Navier-Stokes flow via a piecewise constant level set method. **2018**, 57, 2193-2203		6
773	Topology optimization using a continuous density field and adaptive mesh refinement. *International Journal for Numerical Methods in Engineering*, **2018**, 113, 357-373	2.4	20
772	Developing an Approximation of a Natural, Rough Gravel Riverbed Both Physically and Numerically. **2018**, 8, 449		4
771	Modeling electron beam parameters and plasma interface position in an anode plasma electron gun with hydrogen atmosphere. **2018**, 355, 012008		0
770	Changes in flow of Crosson and Dotson ice shelves, West Antarctica, in response to elevated melt. **2018**, 12, 1415-1431		11
769	Numerical and Experimental Studies of Compression-Tested Copper: Proposal for a New Friction Correction. **2018**, 21,		6
768	On the mixed approximation type pressure correction method for incompressible Navier-Stokes equations. **2018**, 1141, 012119		
767	Matrix-free modified extended BDF applied to the discontinuous Galerkin solution of unsteady compressible viscous flows. **2018**, 88, 544-572		1
766	Grounding-line flux formula applied as a flux condition in numerical simulations fails for buttressed Antarctic ice streams. **2018**, 12, 3229-3242		13
765	Efficient White Noise Sampling and Coupling for Multilevel Monte Carlo with Nonnested Meshes. **2018**, 6, 1630-1655		14
764	Robust Three-Dimensional Level-Set Method for Evolving Fronts on Complex Unstructured Meshes. **2018**, 2018, 1-15		2
763	Information Technologies of Development of Preprocessor of SIGMA Software Package for Numerical Modelling in Continuum Mechanics. **2018**,		0
762	Input and benchmarking data for flow simulations in discrete fracture networks. **2018**, 21, 1135-1139		1
761	Velocity response of Petermann Glacier, northwest Greenland, to past and future calving events. **2018**, 12, 3907-3921		18
760	Preliminary Numerical Analysis of Monitoring Bone Density Using Microwave Tomography. **2018**,		3

759	Performance model for mesh optimization on distributed-memory computers. **2018**,		
758	Combining parallel pattern generation of electrohydrodynamic lithography with serial addressing.. **2018**, 8, 30932-30936		2
757	The Propagation Characteristics of 2-D Metamaterial Waveguides Using the Modal Expansion Theory. **2018**, 66, 4319-4326		6
756	Postvoiding FEM Analysis for Electromigration Failure Characterization. **2018**, 26, 2483-2493		7
755	Surface deformation and source modeling of Ayaz-Akhtarma mud volcano, Azerbaijan, as detected by ALOS/ALOS-2 InSAR. **2018**, 5,		1
754	Impact of the Test Device on the Behavior of the Acoustic Emission Signals: Contribution of the Numerical Modeling to Signal Processing. **2018**, 170, 04024		
753	FE sloshing modelling in bidimensional cavity using wave equation. **2018**, 211, 07001		
752	The creation of a computational model of corrugated beams using the authors program OPRO **2018**, 251, 04007		5
751	Finite element study of the effect of particle interaction on the energy storage density of composite dielectrics. **2018**, 151, 129-134		
750	Numerical Convergence of 3D Electrode Models used in Electrical Impedance Tomography. **2018**, 51, 30-35		1
749	Numerical Simulation of Fatigue Crack Growth in Straight Lugs Equipped with Efficient Structural Health Monitoring. **2018**, 13, 1708-1713		3
748	Random Auxiliary Sources Method based on Point Matching Versus RGW Testing. **2018**,		
747	A transmurally heterogeneous orthotropic activation model for ventricular contraction and its numerical validation. **2018**, 34, e3137		7
746	One machine, one minute, three billion tetrahedra. *International Journal for Numerical Methods in Engineering*, **2018**, 117, 967	2.4	9
745	Full-Wave Interior Penalty Discontinuous Galerkin Method for Waveguide Analysis. **2018**, 36, 5168-5176		0
744	Numerical investigation of flow around a slotted circular cylinder at low Reynolds number. **2018**, 183, 273-282		6
743	Transcranial Direct Current Stimulation of the Leg Motor Area - is it partly somatosensory?. **2018**, 2018, 4764-4767		2
742	Estimating Possibility of Applying Magnetic Sensors in Advanced Probing System of Tunneling Shield. **2018**,		1

741	Computer Flow Simulation of Moffatt Eddies in Single Screw Extrusion. **2018**, 33, 662-668		10
740	Finite-Element Analysis of Three-Dimensional Polarization Mapping with Pulsed Diode Lasers. **2018**,		
739	ROAST: An Open-Source, Fully-Automated, Realistic Volumetric-Approach-Based Simulator For TES. **2018**, 2018, 3072-3075		35
738	A Weak Compatibility Condition for Newest Vertex Bisection in Any Dimension. **2018**, 40, A3853-A3872		1
737	Influence of a Metal Beam of a Corrugated Wall Geometrical Parameters on Size and Nature of Internal Tension Distribution. **2018**, 931, 247-251		10
736	Transforming projection methods to solve steady incompressible flows. **2018**, 74, 538-558		2
735	Pyleecan: An Open-Source Python Object-Oriented Software for the Multiphysic Design Optimization of Electrical Machines. **2018**,		5
734	Adiabatic shear banding in FCC metallic single and poly-crystals using a micromorphic crystal plasticity approach. **2022**, 104288		
733	Construction and Numerical Assessment of Local Absorbing Boundary Conditions for Heterogeneous Time-Harmonic Acoustic Problems. **2022**, 82, 476-501		0
732	Prediction of Intermittent Fluctuations from Surface Pressure Measurements on a Turbulent Airfoil. 1-17		1
731	A coupled finite element approach to spatially resolved lithium plating and stripping in three-dimensional anode microstructures of lithium-ion cells. **2022**, 111179		0
730	UX Ori stars eclipses by large-scale disc perturbations. **2022**, 512, 3098-3112		
729	An optimization-based methodology to design waveguides with metamaterial walls.		
728	Spatio-temporal modeling reveals a layer of tunable control circuits for the distribution of cytokines in tissues.		
727	Wigner-Weyl description of light absorption in disordered semiconductor alloys using the localization landscape theory. **2022**, 105,		2
726	Trailing-Edge Noise Prediction by Solving Helmholtz Equation with Stochastic Source Term. **2022**, 60, 1797-1816		
725	Generalized macroscale model for Cosserat elasticity using Generalized Multiscale Finite Element Method. **2022**, 111011		0
724	Three-dimensional hybrid-Trefftz displacement elements for poroelastodynamic problems in saturated media. *International Journal for Numerical Methods in Engineering*,	2.4	0

723	Design optimization and off-design performance analysis of axisymmetric scramjet intakes for ascent flight. **2022**, 34, 036109	1
722	A Generalised Formulation of G-continuous Bezier Elements Applied to Non-linear MHD Simulations. **2022**, 111101	1
721	Pin-by-Pin Coupled Transient Monte Carlo Analysis Using the iMC Code. **2022**, 10,	
720	Hydraulic modelling of inland urban flooding: recent advances. **2022**, 609, 127763	3
719	Parallel Implementation and Scalability Results of a Local-Scale Air Quality Model: Application to Bamako Urban City. **2022**, 2022, 1-9	1
718	MGNet: a novel differential mesh generation method based on unsupervised neural networks. 1	0
717	STEPS 4.0: Fast and memory-efficient molecular simulations of neurons at the nanoscale.	0
716	Crevasse advection increases glacier calving. 1-10	0
715	Computation of hypersonic viscous flows with the thermally perfect gas model using a discontinuous Galerkin method.	0
714	The ferroelectric field-effect transistor with negative capacitance. **2022**, 8,	3
713	Phase Diagram of a Strained Ferroelectric Nanowire. **2022**, 12, 453	2
712	High fidelity numerical simulations on the unsteady flow field of low-pressure turbine cascades with and without upstream disturbance at moderate Reynolds number. **2022**, 4,	
711	Parallel Implementation of FEM Solver for Shared Memory Using OpenMP. **2022**, 2022, 1-13	
710	Image Representation on Curved Optimal Triangulation.	
709	Estimation of Regional Pulmonary Compliance in Idiopathic Pulmonary Fibrosis Based On Personalized Lung Poromechanical Modeling.. **2022**,	0
708	Biomechanical modelling of the pelvic system: improving the accuracy of the location of neoplasms in MRI-TRUS fusion prostate biopsy.. **2022**, 22, 338	
707	The instantaneous impact of calving and thinning on the Larsen´C Ice Shelf. **2022**, 16, 883-901	2
706	CubeSat measurements of thermospheric plasma: spacecraft charging effects on a plasma analyzer. 1	0

705	Tuning the Pennes Perfusion Rate to Model Large Vessel Cooling Effects in Hepatic Radiofrequency Ablation.. **2022**, 144,	
704	A global, spherical finite-element model for post-seismic deformation using <i>Abaqus</i>. **2022**, 15, 2489-2503	2
703	Shamo: A Tool for Electromagnetic Modeling, Simulation and Sensitivity Analysis of the Head.. **2022**, 1	1
702	Unconditionally stable and parallel Discontinuous Galerkin solver. **2022**, 112, 116-137	
701	Complete design of a fully integrated graphene-based compact plasmon coupler for the mid-infrared.. **2022**, 47, 2004-2007	
700	A viscous active shell theory of the cell cortex. **2022**, 104876	0
699	A rational hybrid RANS-LES model for CFD predictions of microclimate and environmental quality in real urban structures. **2022**, 109042	
698	3D meso-scale simulation of chloride ion transportation in cracked concrete considering aggregate morphology. **2022**, 326, 126632	0
697	Crack nucleation and propagation in the phase-field cohesive zone model with application to Hertzian indentation fracture. **2022**, 241, 111462	0
696	The 2011 Cordﾟ Caulle eruption triggered by slip on the Liquiê-Ofqui fault system. **2022**, 583, 117386	1
695	Enhancement of 3D Mass and Heat Transfer within a Porous Ceramic Exchanger by Flow-Induced Vibration.. **2022**, 7, 13280-13289	0
694	Physical Interpretation of Time-Varying StorAge Selection Functions in a Bench-Scale Hillslope Experiment via Geophysical Imaging of Ages of Water. **2022**, 58,	0
693	Enhancing the magnetic response on polycrystalline nanoframes through mechanical deformation.. **2022**, 12, 5965	
692	Electrostatic free energies carry structural information on nucleic acid molecules in solution.. **2022**, 156, 134201	0
691	Impact of Anisotropic Mesh Adaptation on the Aerothermodynamics of Atmospheric Reentry. 1-17	0
690	Fluid dynamic shape optimization using self-adapting nonlinear extension operators with multigrid preconditioners. 1	1
689	On the Schwarz method for the eddy currents model. **2022**, 113, 174-188	
688	A numerical study of the side-wall effects on turbulent bands in channel flow at transitional Reynolds numbers. **2022**, 240, 105420	1

687	Bandgap tuning in kerfed metastrips under extreme deformation. **2022**, 53, 101693	0
686	A 3D boundary element method for analysing the hydrodynamic performance of a land-fixed oscillating water column device. **2022**, 138, 407-422	0
685	Coupled thermal-hydrodynamic-mechanical□chemical numerical simulation for gas production from hydrate-bearing sediments based on hybrid finite volume and finite element method. **2022**, 145, 104692	1
684	Phase-field modelling of brittle fracture with Smoothed Radial Point Interpolation Methods. **2022**, 138, 219-234	0
683	An accurate, robust, and efficient finite element framework with applications to anisotropic, nearly and fully incompressible elasticity.. **2022**, 394, 114887	1
682	Tunable phononic bandgap materials designed via topology optimization. **2022**, 163, 104849	2
681	Air curtains for reduction of natural convection heat loss from a heated plate: A numerical investigation. **2022**, 189, 122709	0
680	Peridynamic modeling of stochastic fractures in bolted glass plates. **2022**, 122, 103890	
679	RBF approximation of three dimensional PDEs using tensor Krylov subspace methods. **2022**, 139, 77-85	
678	Variational inference at glacier scale. **2022**, 459, 111095	0
677	Effect of pore size and electrolyte flow rate on the bubble removal efficiency of 3D pure Ni foam electrodes during alkaline water electrolysis. **2022**, 10, 107648	1
676	The software design of Gridap: A Finite Element package based on the Julia JIT compiler. **2022**, 276, 108341	0
675	Toward toughness improvement of foam core sandwich panel inserts through an energy approach. **2022**, 94, 104575	0
674	Parallel simulation of the Poisson□Nernst□Planck corrosion model with an algebraic flux correction method. **2022**, 206, 103734	0
673	Modelling and Simulation of Magnetic Fields in the Vicinity of High Voltage Transmission Line. **2021** ,	
672	Microwave Imaging of Dielectric Targets by Means of a Variable-Exponent Finite-Elements Approach. **2021**,	
671	Complex free-space magnetic field textures induced by three-dimensional magnetic nanostructures.. **2021**,	8
670	A Compact Subcell WENO Limiting Strategy Using Immediate Neighbors for Runge-Kutta Discontinuous Galerkin Methods for Unstructured Meshes. **2022**, 90, 1	0

669 In situ measurement of wave attractor induced forces. **2022**, 63, 1

668 Thin-shell approach for modeling superconducting tapes in the H-□finite-element formulation. **2022**, 35, 024001 1

667 On Parameter Identification for Reaction-Dominated Pore-Scale Reactive Transport Using Modified Bee Colony Algorithm. **2022**, 15, 15 1

666 Parallel approach of Schr□dinger-based quantum corrections for ultrascaled semiconductor devices. **2022**, 21, 10-20

665 Post-Seismic to Co-Seismic Moment Ratios for the 2016 Moderate Earthquakes Along Chaman Fault. **2022**, 49, 0

664 Model-Assisted Guided-Wave-Based Approach for Disbond Detection and Size Estimation in Honeycomb Sandwich Composites.. **2021**, 21, 1

663 Stress ball morphogenesis: How the lizard builds its lung.. **2021**, 7, eabk0161 0

662 Workflow for generating complex tetrahedral grids of three-dimensional geo-electromagnetic simulation for a realisticiron deposit. **2021**,

661 Semi-automated Data-driven FE Mesh Generation and Inverse Parameter Identification for a Multiscale and Multiphase Model of Function-Perfusion Processes in the Liver. **2021**, 21,

660 Prediction of Conductive Anomalies Ahead of the Tunnel by the 3D-Resitivity Forward Modeling in the Whole Space. **2021**, 2021, 1-12 1

659 Partition of Unity Finite Element Method for 2D Vibro-Acoustic Modeling. **2021**, 29, 0

658 Stochastic Inversion of Three-Dimensional Discrete Fracture Network Structure With Hydraulic Tomography. **2021**, 57, 0

657 Humidity influence on mechanics of paper materials: joint numerical and experimental study on fiber and fiber network scale. **2022**, 29, 1129-1148 2

656 A Review on Meshing Techniques in Biomedicine. **2021**, 3, 243-262

655 Numerical Study of the Effect of Thixotropy on Extrudate Swell.. **2021**, 13, 3

654 Simulation of Unconfined Aquifer Flow Based on Parallel Adaptive Mesh Refinement. **2021**, 57, 1

653 Load-Balancing Strategies in Discrete Element Method Simulations. **2022**, 10, 79 0

652 General finite-volume framework for saddle-point problems of various physics. **2021**, 36, 359-379

651 A Fully-Coupled Electro-Mechanical Whole-Heart Computational Model: Influence of Cardiac Contraction on the ECG.. **2021**, 12, 778872 2

650 Preconditioning the Quad Dominant Mesh Generator for Ship Structural Analysis. **2022**, 15, 2 1

649 Quantitative analysis of macroscopic solute transport in the murine brain. **2021**, 18, 55 2

648 Python-Based Open-Source Electro-Mechanical Co-Optimization System for MEMS Inertial Sensors.. **2021**, 13, 2

647 Modelling the nucleation and propagation of cracks at twin boundaries. **2022**, 233, 17-38 1

646 Role of metal-nanostructure features on tip-enhanced photoluminescence of single molecules. **2021**, 155, 214304 0

645 On stress in abdominal aortic aneurysm: Linear versus non-linear analysis and aneurysms rupture risk. **2021**, e3554 0

644 Desenvolvimento e otimizaǒ de silenciador automotivo orientado a protǒipos Formula Student. **2020**, 35,

643 Calculation of Gravity Topographic Effect of Qinghai-Tibet Plateau Based on Triangular Prism Elements. **2022**, 12, 505-514

642 A Hybrid Regional Model for Predicting Ground Deformation Induced by Large-Section Tunnel Excavation. **2022**, 1-22

641 Numerical Study of Non-Linear Effects for a Swept Bias Langmuir Probe. **2022**, 1-9 0

640 OUP accepted manuscript.

639 Anatomical Atlas of the Human Head for Electrical Impedance Tomography. **2022**, 1693-1699

638 Time-Difference Electrical Impedance Tomography with a Blood Flow Model as Prior Information for Stroke Monitoring. **2022**, 1823-1828

637 An energy diminishing arbitrary LagrangianĒulerian finite element method for two-phase NavierŠtokes flow. **2022**, 111215 1

636 An Assessment of Solvers for Algebraically Stabilized Discretizations of Convection-Diffusion-Reaction Equations. **2022**, 1

635 Robust Multigrid Techniques for Augmented Lagrangian Preconditioning of Incompressible Stokes Equations with Extreme Viscosity Variations. S27-S53 1

634 Differences in electric field strength between clinical and non-clinical populations induced by prefrontal tDCS: A cross-diagnostic, individual MRI-based modeling study.. **2022**, 34, 103011 0

633 A posteriori error analysis of Banach spaces-based fully-mixed finite element methods for Boussinesq-type models*. **2022**, 0

632 Improving mechanical ice protection systems with topology optimization. **2022**, 65, 1

631 Contour Method with Uncertainty Quantification: A Robust and Optimised Framework via Gaussian Process Regression. 1 0

630 An Advanced Discrete Fracture Methodology for Fast, Robust, and Accurate Simulation of Energy Production from Complex Fracture Networks. 0

629 Skeleton curve and phantom node method for the Thick Level Set approach to fracture. **2022**, 108443

628 Frequency-robust preconditioning of boundary integral equations for acoustic transmission. **2022**, 111229 1

627 Leading-edge vortex dynamics on plunging airfoils and wings. **2022**, 940, 0

626 Unravelling soil water dynamics in almond orchards characterized by soil-heterogeneity using electrical resistivity tomography. **2022**, 269, 107652 0

625 Data_Sheet_1.PDF. **2020**,

624 Data_Sheet_2.pdf. **2020**,

623 Data_Sheet_1.DOCX. **2018**,

622 Data_Sheet_1.pdf. **2019**,

621 Presentation_1.PPTX. **2020**,

620 Data_Sheet_1.docx. **2020**,

619 Data_Sheet_1.PDF. **2020**,

618 Presentation_1.pdf. **2019**,

617 Video_1.MP4. **2019**,

616 Video_2.mp4. **2019**,

615 Video_3.mp4. **2019**,

614 Video_4.mp4. **2019**,

613 Video_5.mp4. **2019**,

612 Video_6.mp4. **2019**,

611 Video_7.mp4. **2019**,

610 Video_8.mp4. **2019**,

609 Video_9.mp4. **2019**,

608 Image_1.tif. **2018**,

607 Image_2.tif. **2018**,

606 Presentation_1.pdf. **2018**,

605 Data_Sheet_1.pdf. **2019**,

604 Image_1.pdf. **2018**,

603 Image_2.pdf. **2018**,

602 Image_3.pdf. **2018**,

601 Image_4.pdf. **2018**,

600 Image_5.pdf. **2018**,

599 Table_1.pdf. **2018**,

598 Table_2.pdf. **2018**,

597	Video_1.MOV. **2018**,	
596	Video_2.MOV. **2018**,	
595	Data_Sheet_1.PDF. **2019**,	
594	Data_Sheet_2.pdf. **2019**,	
593	Modeling Neurons in 3D at the Nanoscale.. **2022**, 1359, 3-24	0
592	Quantifying the environmental impact of a major coal mine project on the adjacent Great Barrier Reef ecosystems.. **2022**, 179, 113656	
591	Toward 3D-bioprinting of an endocrine pancreas: A building-block concept for bioartificial insulin-secreting tissue.. **2022**, 13, 20417314221091033	0
590	Uncertainty Quantification of the Lifetime of Self-Healing Thermal Barrier Coatings Based on Surrogate Modelling of Thermal Cyclic Fracture and Healing.	
589	Serpent-Openfoam Coupled Calculations of Irradiated Nuclear Fuel.	
588	Machine-learning flow control with few sensor feedback and measurement noise. **2022**, 34, 047118	1
587	Sedimentological data-driven bottom friction parameter estimation in modelling Bristol Channel tidal dynamics.	0
586	Optimal experiment design for a bottom friction parameter estimation problem. **2022**, 13,	
585	Topology optimization with automated derivative computation for multidisciplinary design problems. **2022**, 65,	1
584	Computer 3D modeling of radiofrequency ablation of atypical cartilaginous tumours in long bones using finite element methods and real patient anatomy.. **2022**, 6, 21	0
583	preCICE v2: A sustainable and user-friendly coupling library. 2, 51	2
582	Model-Based Analysis of Myocardial Contraction Patterns in Ischemic Heart Disease. **2022**,	
581	Nanostructured In3SbTe2 antennas enable switching from sharp dielectric to broad plasmonic resonances. **2022**,	3
580	The AETHER project: development of air-breathing electric propulsion for VLEO missions.	1

579	Design of detectors at the electron ion collider with artificial intelligence. **2022**, 17, C04038	
578	Limitations on validating slitted sound absorber designs through budget additive manufacturing. **2022**, 110703	
577	An adapted deflated conjugate gradient solver for robust extended/generalised finite element solutions of large scale, 3D crack propagation problems. **2022**, 395, 114937	0
576	HIFIR: Hybrid Incomplete Factorization with Iterative Refinement for Preconditioning Ill-conditioned and Singular Systems.	
575	Benchmark Simulations of Dense Suspensions Flow Using Computational Fluid Dynamics. **2022**, 9,	0
574	Analysis of an open foam generated from computerized tomography scans of physical foam samples. *International Journal for Numerical Methods in Engineering*,	2.4
573	Electronic Dynamics of a Molecular System Coupled to a Plasmonic Nanoparticle Combining the Polarizable Continuum Model and Many-Body Perturbation Theory.	
572	3D fluid□tructure interaction simulation of an hydrofoil at low Reynolds number. **2022**, 111, 103573	0
571	Thermoelectric model to study the cardiac action potential and arrhythmias. **2022**, 12, 055107	
570	Dyssynchronous Left Ventricular Activation is Insufficient for the Breakdown of Wringing Rotation. **2022**, 13,	
569	A non-overlapping domain decomposition method with perfectly matched layer transmission conditions for the Helmholtz equation. **2022**, 395, 115006	0
568	Strain-rate based arclength model for nonlinear microscale analysis of unidirectional composites under off-axis loading. **2022**, 111697	0
567	Geometrically Reduced Modelling of Pulsatile Flow in Perivascular Networks. **2022**, 10,	1
566	Fast Parallel Evaluation of Exact Geometric Predicates on GPUs. **2022**, 103285	
565	PUMA, antiProton unstable matter annihilation. **2022**, 58,	0
564	OpenCMP: An Open-Source Computational Multiphysics Package. **2022**, 7, 3742	
563	The parametrized superelement approach for lattice joint modelling and simulation. 1	0
562	Influence of elasticity on the morphology of fcc-Cu precipitates in Fe-Cu alloys. A phase-field study. **2022**, 566, 153764	0

561	Interpretation of 28´nm FD-SOI quantum dot transport data taken at 1.4´K using 3D quantum TCAD simulations. **2022**, 194, 108355	0
560	Numerical study on heat transfer efficiency for borehole heat exchangers in Linqu County, Shandong Province, China. **2022**, 8, 5570-5579	
559	Heat transfer enhancement by chaotic advection in a novel sine-helical channel geometry. **2022**, 193, 122870	0
558	A Potential Role of Acute Choroidal Expansion in Nonarteritic Anterior Ischemic Optic Neuropathy.. **2022**, 63, 23	1
557	Full torso and limited-domain computer models for epicardial pulsed electric field ablation. **2022**, 106886	1
556	PIMesh: An automatic point cloud and unstructured mesh generation algorithm for meshless methods and finite element analysis - with applications in surgical simulations.. **2022**, e3615	
555	A Mathematical and Numerical Framework for Traffic-Induced Air Pollution Simulation in Bamako. **2022**, 10, 76	0
554	Domain Wall Automotion in Three-Dimensional Magnetic Helical Interconnectors.. **2022**,	5
553	On generalized boundary conditions for mesoscopic volumes in computational homogenization. **2022**, 115718	0
552	Evaluation of anterior cruciate ligament surgical reconstruction through finite element analysis.. **2022**, 12, 8044	0
551	Mapping magnetic signals of individual magnetite grains to their internal magnetic configurations using micromagnetic models.	
550	Fracture behavior of anisotropic 3D-printed parts: Experiments and numerical simulations. **2022**,	2
549	A hybrid volume of fluid and level set interface capturing scheme with quartic surface representation for unstructured meshes.	0
548	A new engineering theory describing oblique free surface impact by flexible plates. **2022**, 256, 111473	1
547	Gmsh Approach to Robust Mesh Generation of Surfaces with Irregular Parametrizations. **2022**, 95-112	
546	On the Selection of Random Field Evaluation Points in the p-MLQMC Method. **2022**, 185-203	
545	Global aero-structural design optimization of composite wings with active manoeuvre load alleviation.	1
544	Mathematical modelling of proton migration in Earth mantle.	

543	Effect of residual-stress evolution during curing process on fatigue-life of fiber-reinforced polymers. 073168442211015	
542	How does the Nature of an Excipient and an Atheroma Influence Drug-Coated Balloon Therapy?.	
541	Lethe-DEM: an open-source parallel discrete element solver with load balancing.	2
540	The effect of non-Newtonian behavior on contact formation in an external gear pump. **2022**, 104818	1
539	Continuum multiscale modeling of absorption processes in micro- and nanocatalysts.	
538	A roughness penalty approach to estimate densities over two-dimensional manifolds. **2022**, 107527	
537	Validation of a TLP wind turbine numerical model against model-scale tests under regular and irregular waves. **2022**, 256, 111491	2
536	Electrostatic discharge simulation using a GPU-accelerated DGTD solver targeting modern graphics processors. **2022**, 1-1	0
535	Additive-Manufactured, Highly-Conductive Metasurfaces, with Application Enabling Secondary Properties, for Microwave Waveguide Components. **2022**, 1-1	
534	Development of a 3D Finite-Element Modelling Generation System Based on Data Processing Platform and Fatigue Analysis of Full-Scale Reinforced-Concrete Bridge. **2022**,	
533	Impact of slit configuration on eddy current and supply current losses in PCB winding of slotless PM machines. **2022**, 1-1	0
532	The solution of the anomalous diffusion equation by a finite element method formulation based on the Caputo derivative. **2022**, 44,	0
531	Large Eddy Simulation of HAWT and VAWT performances in the vicinity of a building. **2022**, 2265, 042078	
530	Characterization of the Finite Element CFD Capabilities in the Multiphysics Object Oriented Simulation Environment. **2022**,	
529	Effect of 2D ice accretion on turbulent boundary layer and trailing-edge noise. **2022**, 21, 260-285	0
528	3D Nonlinear Analysis of Stilling Basin in Complex Fractured Dam Foundation. **2022**, 2021,	0
527	High temperature nanoindentation of iron: experimental and computational study. **2022**, 153815	
526	Topology optimization for the design of porous electrodes. **2022**, 65,	1

525	Modification of a turbulent boundary layer by circular cavities.	1
524	Surface-Supported Metal-Organic Framework as Low-Dielectric-Constant Thin Films for Novel Hybrid Electronics. 2200175	3
523	Robust treatment of cross-points in optimized Schwarz methods. **2022**, 151, 405-442	0
522	Using fractured outcrops to calculate permeability tensors: implications for geothermal fluid flow and the influence of seismic-scale faults. 1-17	0
521	Development and validation of a thermal simulation for the Czochralski crystal growth process using model experiments. **2022**, 126750	
520	Conductive Heat Transfer in Thermal Bridges. **2022**, 2, 1019-1035	
519	An object-oriented geometric engine design for discontinuities in unfitted/immersed/enriched finite element methods. *International Journal for Numerical Methods in Engineering*,	2.4
518	A virtual microstructure generator for 3D stone masonry walls. **2022**, 104656	0
517	Improved Vertical Carrier Transport for Green III-Nitride LEDs Using (In,Ga)N Alloy Quantum Barriers. **2022**, 17,	2
516	Effect of magnetic connectivity on CubeSat needle probe measurement. **2022**, 367,	
515	The Effects of Negative Periocular Pressure on Biomechanics of the Optic Nerve Head and Cornea: A Computational Modeling Study.	0
514	Urban Pluvial Flood Modeling by Coupling Raster-Based Two-Dimensional Hydrodynamic Model and SWMM. **2022**, 14, 1760	0
513	Development of a numerical model for braided river morphology and vegetation evolution with application to the Lower Waitaki River (Aotearoa - New Zealand). **2022**, 104236	1
512	A Well-Conditioned Weak Coupling of Boundary Element and High-Order Finite Element Methods for Time-Harmonic Electromagnetic Scattering by Inhomogeneous Objects. **2022**, 44, B640-B667	
511	Characterization of the Pace-and-Drive Capacity of the Human Sinoatrial Node: a 3D in silico Study.	
510	Performance Prediction of Induction Motor Due to Rotor Slot Shape Change Using Convolution Neural Network. **2022**, 15, 4129	
509	Force propagation between epithelial cells depends on active coupling and mechano-structural polarization.	
508	Modelling of viscoelastic properties and crack growth in bituminous mixtures: Application to the simulation of crack growth in semi-circular samples subjected to oxidative ageing. **2022**, 108580	1

507	Computational Design of Laser-Cut Bending-Active Structures. **2022**, 103335	0
506	Non-uniqueness, stability and bifurcation analyses in elasto-viscoplastic boundary value problems with no inertia. **2022**, 177, 103714	
505	A parallel parameterized level set topology optimization framework for large-scale structures with unstructured meshes. **2022**, 397, 115112	0
504	Aerodynamic behavior of curved flexible wings. **2022**, 112, 103609	
503	A Multiscale Crack Iteration and Remeshing Model for Low-Cycle Crack Propagation Evaluation. **2022**, 148,	
502	Differences in Electric Field Strength between Clinical and Non-Clinical Populations Induced by Prefrontal Tdcs: A Cross-Diagnostic, Individual MRI Based Modeling Study.	
501	A Novel Surrogate-Based Approach to Yield Estimation and Optimization of Microwave Structures Using Combined Quadratic Mappings and Matrix Transfer Functions. **2022**, 1-15	1
500	Adjoint-Based Sensitivity Analysis in ́High-Temperature Fluid Flows with ́Paticipating Media. **2022**, 125-150	
499	Working with Dynamic Earthquake Rupture Models: A Practical Guide. **2022**, 93, 2096-2110	1
498	Configurable open-source data structure for distributed conforming unstructured homogeneous meshes with GPU support.	
497	Large Eddy Simulation of optimal Synthetic Jet Actuation on a SD7003 airfoil in post-stall conditions. **2022**, 107679	0
496	Upscaling of two-phase discrete fracture simulations using a convolutional neural network.	1
495	IGLOO3D simulations of the 1st AIAA Ice-Prediction-Workshop database. **2022**,	0
494	Physics-based sizing functions for ocean-to-estuary shallow-water models. **2022**, 102061	
493	Dynamics and bifurcations of laminar annular swirling and non-swirling jets. **2022**, 943,	0
492	An Orthogonalization-Free Parallelizable Framework for All-Electron Calculations in Density Functional Theory. **2022**, 44, B723-B745	0
491	A new method of 3D direct current resistivity modelling using the long electrode source for forward-probing in tunnels.	
490	Time- and frequency-domain hybridizable discontinuous Galerkin solvers for the calculation of the Cherenkov radiation. **2022**, 115170	1

489 Study on the Resolution of Large-Eddy Simulations for Supersonic Jet Flows. **2022**,

488 Optimal selection of snapshots in the Reduced Basis Method for linearized aeroacoustic with impedance boundary conditions. **2022**,

487 Aeroacoustic Analysis of a Subsonic Jet using the Discontinuous Galerkin Method. **2022**, 0

486 Design and thermal conductivity of 3D artificial cross-linked random fiber networks. **2022**, 110800 1

485 Kinematic evolution of kilometre-scale fold trains in surge-type glaciers explored with a numerical model. **2022**, 104644

484 Computational analysis of the anterior cruciate ligament reconstruction under different graft configurations.

483 Application of Wavelet Analysis to Trailing-Edge Noise. **2022**, 0

482 Cooperative Route Planning Framework for Multiple Distributed Assets in Maritime Applications. **2022**, 0

481 Modeling and simulation of diffusion and reaction processes during the staining of tissue sections on slides. 1

480 Linear modal instabilities around post-stall swept finite wings at low Reynolds numbers. **2022**, 944, 1

479 Effect of particle morphology on mechanical behaviour of highly particle-filled composites. **2022**, 227, 107446 0

478 Moment fitted cut spectral elements for explicit analysis of guided wave propagation. **2022**, 398, 115140 1

477 Subsonic source and doublet panel methods. **2022**, 113, 103624

476 Deep reinforcement learning for heat exchanger shape optimization. **2022**, 194, 123112 0

475 Verified simulation of the stationary polymer fluid flows in the channel with elliptical cross-section. **2022**, 430, 127294 0

474 Learning mechanically driven emergent behavior with message passing neural networks. **2022**, 270, 106825 0

473 Optimal design of shape changing mechanical metamaterials at finite strains. **2022**, 252, 111769 0

472 Neuroimaging, Neural Population Models for. **2022**, 2256-2281

471	Finite Element-Boundary Integral Simulation of Icing Effects on a Marine Radar Reflector. **2022**,		
470	A scalable adaptive-matrix SPMV for heterogeneous architectures. **2022**,		1
469	Next-Generation Local Time Stepping for the ADER-DG Finite Element Method. **2022**,		
468	Enhancing Mechanical Metamodels with a Generative Model-Based Augmented Training Dataset. **2022**,		0
467	Dispersive one-dimensional Majorana modes with emergent supersymmetry in one-dimensional proximitized superconductors via spatially modulated potentials and magnetic fields. **2022**, 105,		0
466	A computational model of rabbit geometry and ECG: Optimizing ventricular activation sequence and APD distribution. **2022**, 17, e0270559		
465	A Finite Element Based Tool to Support the Understanding of Electromagnetism Concepts. **2022**,		
464	Robust technology computer-aided design of gated quantum dots at cryogenic temperature. **2022**, 120, 264001		1
463	Shape Optimization for the Mitigation of Coastal Erosion via Porous Shallow Water Equations *International Journal for Numerical Methods in Engineering*,	2.4	0
462	A CMOS monolithic amplifier for cardiac EIT applications.		
461	Sea level rise and the Great Barrier Reef the future implications on reef tidal dynamics.		
460	The deal.II Library, Version 9.4. **2022**,		2
459	Permafrost cooled in winter by thermal bridging through snow-covered shrub branches. **2022**, 15, 554-560		0
458	Effect of pre-existing cracks on thermal cracking of granitic rocks under confinement. **2022**, 8,		
457	Steady low Mach number flows: identification of the spurious mode and filtering method. **2022**, 111462		
456	Probabilistic deep learning for real-time large deformation simulations. **2022**, 398, 115307		2
455	Reducing errors caused by geometrical inaccuracy to solve partial differential equations with moving frames on curvilinear domain. **2022**, 398, 115261		0
454	A Fast 3-D finite element modeling algorithm for land transient electromagnetic method with OneAPI acceleration. **2022**, 166, 105186		

453	A scheme for the analysis of primal stationary boundary value problems based on FE/FD multi-method. **2022**, 209, 103809	0
452	On the tensor viscosity based on Gauss quadrature: A comparison of robustness, efficiency, and connection with hourglass control. **2022**, 466, 111392	
451	Simultaneous shape and mesh quality optimization using pre-shape calculus. **2021**, 50, 473-520	1
450	Multi-scale rotation-equivariant graph neural networks for unsteady Eulerian fluid dynamics.	2
449	Experimental investigation and micromechanical modeling of mechanical and durability properties of concrete based on shells from sediments. **2022**, 104684	0
448	Comparing pseudo-analytical solutions with 2D and 3D numerical simulations of soil stress induced by agricultural field traffic. **2022**, 221, 195-207	
447	Uncertainty quantification of the lifetime of self-healing thermal barrier coatings based on surrogate modelling of thermal cyclic fracture and healing. **2022**, 221, 110973	0
446	VITAS: A multi-purpose simulation code for the solution of neutron transport problems based on variational nodal methods. **2022**, 178, 109335	1
445	The Curious Case of 2D Isotropic Incompressible Neo-Hookean Composites.	0
444	Implementation and Validation of Shadow Dynamics Algorithm for Satellites. **2022**,	
443	Prediction of wall stress and oxygen flow in patient-specific abdominal aortic aneurysms: the role of intraluminal thrombus.	0
442	Ultraliser: a framework for creating multiscale, high-fidelity and geometrically realistic 3D models for in silico neuroscience.	
441	Placement of Biological Membrane Patches in a Nanofluidic Gap With Control Over Position and Orientation. **2022**, 9, 2200941	
440	Approximation of fractional harmonic maps.	0
439	Eulerian--Lagrangian Runge--Kutta Discontinuous Galerkin Method for Transport Simulations on Unstructured Meshes. **2022**, 44, A2037-A2060	
438	Analysis of Obstacles Immersed in Viscous Fluids Using Brinkman's Law for Steady Stokes and Navier--Stokes Equations. **2022**, 82, 1369-1386	0
437	Experimental study of eigenstrains in temporomandibular joint discs using digital image analysis. **2022**, 105395	
436	What causes the persistent seismicity below the eastern flank of Piton de la Fournaise (Rùnion Island)? Elasto-plastic models of magma inflation. **2022**, 107628	

435	The Neper/FEPX Project: Free / Open-source Polycrystal Generation, Deformation Simulation, and Post-processing. **2022**, 1249, 012021	0
434	Combined anti-angiogenic and cytotoxic treatment of a solid tumour: In silico investigation of a xenograft animal model digital twin. **2022**, 111246	0
433	Contribution of Viscoelastic Stress to the Synchronization of Earthquake Cycles on Oceanic Transform Faults. **2022**, 127,	1
432	Quantification of left ventricular strain and torsion by joint analysis of 3D tagging and cine MR images. **2022**, 102598	0
431	Generalized scheme in the PFEM for velocity-pressure and displacement-pressure formulations of the incompressible Navier-Stokes equations.	
430	Benchmark problems for transcranial ultrasound simulation: Intercomparison of compressional wave models. **2022**, 152, 1003-1019	3
429	CVEM-BEM Coupling with Decoupled Orders for 2D Exterior Poisson Problems. **2022**, 92,	2
428	Subcell limiting strategies for discontinuous Galerkin spectral element methods. **2022**, 105627	0
427	A Multi-Resolution Finite-Element Approach for Global Electromagnetic Induction Modeling With Application to Southeast China Coastal Geomagnetic Observatory Studies. **2022**, 127,	3
426	A numerical study of the liquid motion in Titan subsurface ocean. **2022**, 115219	1
425	Hex-Mesh Generation and Processing: a Survey.	1
424	Modelled dynamic retreat of Kangerlussuaq Glacier, East Greenland, strongly influenced by the consecutive absence of an ice mlange in Kangerlussuaq Fjord. 1-12	0
423	Mechanical coupling of supracellular stress amplification and tissue fluidization during exit from quiescence. **2022**, 119,	0
422	Intelligent resolution: Integrating Cryo-EM with AI-driven multi-resolution simulations to observe the severe acute respiratory syndrome coronavirus-2 replication-transcription machinery in action. 109434202211135	0
421	Aeroelasticity of Flying-Wing Aircraft Subject to Morphing: A Stability Study. 1-14	1
420	Well layout optimization for groundwater heat pump systems using the adjoint approach. **2022**, 268, 116033	1
419	Oil injection lubrication analysis of a silent chain drive system. **2022**, 172, 103210	
418	On the interplay of elastic anisotropy and fracture toughness anisotropy in fracture of single and multiphase polycrystals. **2022**, 273, 108696	0

417	Experimental and numerical investigations of the fracture in 3D-printed open-hole plates. **2022**, 121, 103543	0
416	Risk assessment for people and vehicles in an extreme urban flood: Case study of the 7.20 flood event in Zhengzhou, China. **2022**, 80, 103205	1
415	Physics-informed PointNet: A deep learning solver for steady-state incompressible flows and thermal fields on multiple sets of irregular geometries. **2022**, 468, 111510	1
414	Entropy stable and positivity preserving Godunov-type schemes for multidimensional hyperbolic systems on unstructured grid. **2022**, 468, 111493	0
413	Seismic resonant metamaterials for the protection of an elastic-plastic SDOF system against vertically propagating seismic shear waves (SH) in nonlinear soil. **2022**, 162, 107366	0
412	Speeding up mesoscale thermal simulations of powder bed additive manufacturing thanks to the forward Euler time-integration scheme: A critical assessment. **2022**, 211, 103825	2
411	FSI ibrations of immersed cylinders. Simulations with the engineering open-source code TrioCFD. Test cases and experimental comparisons. **2022**, 350, 451-476	1
410	Evaluating the Influence of Anatomical Accuracy and Electrode Positions on EEG Forward Solutions.	0
409	Experimental verification of a novel hierarchical lattice material with superior buckling strength. **2022**, 10, 090701	2
408	Extended Powell abin finite element scheme for linear elastic fracture mechanics. **2022**, 274, 108719	0
407	Sea-level change, palaeotidal modelling and hominin dispersals: The case of the southern Red Sea. **2022**, 293, 107719	0
406	On the formulation and implementation of extrinsic cohesive zone models with contact. **2022**, 400, 115545	0
405	On the dynamics of 3D nonlocal solids. **2022**, 180, 103742	0
404	Efficient multi-level hp-finite elements in arbitrary dimensions. **2022**, 401, 115575	1
403	Nozzle design optimization for supersonic wind tunnel by using surrogate-assisted evolutionary algorithms. **2022**, 130, 107879	0
402	Study on the internal crack network of the ASR-affected concrete by the tomography-based numerical model. **2022**, 162, 106974	0
401	A numerical approach for fluid-particle-structure interactions problem with CFD-DEM-CSD coupling method. **2022**, 152, 105007	0
400	Anisotropic mesh generation and adaptation for quads using the L-CVT method. **2022**, 470, 111578	0

399	Parallel high-order resolution of the Shallow-water equations on real large-scale meshes with complex bathymetries. **2022**, 471, 111629	0
398	An analysis of embedded weak discontinuity approaches for the finite element modelling of heterogeneous materials. **2022**, 273, 106894	0
397	On the fast assemblage of finite element matrices with application to nonlinear heat transfer problems. **2023**, 436, 127516	0
396	Analysis of a weak Galerkin method for second-order elliptic equations with minimal regularity on polytopal meshes. **2023**, 420, 114744	0
395	In Silico Study of Local Electrical Impedance Measurements in the Atria - Towards Understanding and Quantifying Dependencies in Human. **2022**, 1-10	0
394	Two-Dimensional Thermal Diffusion Equation Solver Based on Unstructured Transmission-Line Modelling and Optimal Delaunay Triangular Meshes. **2022**, 1-8	0
393	Spurious Modes in Model Order Reduction in Variational Problems in Electromagnetics. **2022**, 1-0	0
392	Fast A Posteriori State Error Estimation for Reliable Frequency Sweeping in Microwave Circuits via the Reduced-Basis Method. **2022**, 1-0	0
391	Inverse design of molecule–metal nanoparticle systems interacting with light for desired photophysical properties. **2022**, 24, 22768-22777	0
390	Performance Analysis of Electrical Machines Using a Hybrid Data- and Physics-Driven Model. **2022**, 1-10	0
389	An anisotropic extension for a thermoviscoplastic GTN ductile damage model. **2022**,	0
388	Physically-based sound synthesis software for Computer-Aided-Design of piano soundboards. **2022**, 6, 30	0
387	Estimation of Aortic Valve Interstitial Cell-Induced 3D Remodeling of Poly(Ethylene Glycol) Hydrogel Environments Using an Inverse Finite Element Approach.	0
386	Numerical simulation of the heat transfer process in the system of computer processor. **2022**,	0
385	Modeling Speech Sound Radiation With Different Degrees of Realism for Articulatory Synthesis. **2022**, 10, 95008-95019	1
384	Description of Microwave Circuits via the Reduced-Basis Method Giving Physical Insight. **2022**, 1-1	2
383	Physics-Based Greedy Algorithm for Reliable Fast Frequency Sweep in Electromagnetics via the Reduced-Basis Method. **2022**, 1-1	1
382	Flow Optimization for the Thermal Management of Heavy-Duty Batteries Using Viscoelastic Coolants. **2022**,	0

381	A versatile cubic-curved triangle mesh generator using subparametric transformation for FEM and image processing applications. **2022**,	0
380	A Software to Visualize, Edit, Model and Mesh Vascular Networks. **2022**,	0
379	An Unstructured Mesh Transformation FDTD Method for the TM Mode Equations. **2022**,	0
378	Sound Scattering by Gothic Piers and Columns of the Cathédrale Notre-Dame de Paris. **2022**, 4, 679-703	1
377	A Shape Newton Scheme for Deforming Shells with Application to Capillary Bridges. **2022**, 44, B1175-B1194	0
376	Hex Me If You Can. **2022**, 41, 125-134	0
375	Hydraulic fracturing analysis in fluid-saturated porous medium.	0
374	Spectral element method For 3-D controlled-source electromagnetic forward modelling using unstructured hexahedral meshes.	0
373	Evaluation of six geothermal heat flux maps for the Antarctic Lambert–Amery glacial system. **2022**, 16, 3619-3633	0
372	An Analysis of High-Frequency Helmholtz Problems in Domains with Conical Points and Their Finite Element Discretisation. **2022**,	0
371	Calibration of cohesive parameters for a castable refractory using 4D tomographic data and realistic crack path from in-situ wedge splitting test. **2022**,	0
370	Operative approach to quantum electrodynamics in dispersive dielectric objects based on a polarization-mode expansion. **2022**, 106,	0
369	Analysis of progressive fracture in fluid-saturated porous medium using splines.	0
368	cideMOD: An Open Source Tool for Battery Cell Inhomogeneous Performance Understanding. **2022**, 169, 090528	0
367	Point Cloud Generation for Meshfree Methods: An Overview.	0
366	Birefringent strands drive the flow of viscoelastic fluids past obstacles. **2022**, 948,	1
365	A Neural Network-Based Mesh Quality Indicator for Three-Dimensional Cylinder Modelling. **2022**, 24, 1245	0
364	Mountain rivers reveal the earthquake hazard of geologic faults in Silicon Valley.	0

363	A unification of least-squares and Green-Gauss gradients under a common projection-based gradient reconstruction framework. **2022**,	1
362	Predicting cell stress and strain during extrusion bioprinting.	0
361	Simple strategy toward tailoring fracture properties of brittle architected materials.	1
360	Basal hydrofractures near sticky patches. 1-12	0
359	Data-driven computational models of ventricular-arterial hemodynamics in pediatric pulmonary arterial hypertension. 13,	0
358	Development of a cross-sectional finite element for the analysis of thin-walled composite beams like wind turbine blades. 0309524X2211233	0
357	Effect of Anisotropic Electrical Conductivity Induced by Fiber Orientation on Ablation Characteristics of Pulsed Field Ablation in Atrial Fibrillation Treatment: A Computational Study. **2022**, 9, 319	1
356	Comparison of two mesh-moving techniques for finite element simulations of galvanic corrosion.	1
355	preCICE v2: A sustainable and user-friendly coupling library. 2, 51	1
354	Tetrahedral remeshing in the context of large-scale numerical simulation and high performance computing. **2022**, 11, 129-164	0
353	On the limitations of low-rank approximations in contact mechanics problems.	0
352	A Numerical Assessment of Finite Element Discretizations for Convection-Diffusion-Reaction Equations Satisfying Discrete Maximum Principles. **2022**,	0
351	Polarisation Topology at the Nominally Charged Domain Walls in Uniaxial Ferroelectrics. 2203028	2
350	The effect of aspect ratio on the inception of primary instabilities in the laminar regime wake of a D-shaped cylinder. 095440622211219	0
349	Optimization of Fused Filament Fabrication for Maximum Stiffness Considering Anisotropy. **2023**, 367-376	0
348	Hybrid-Trefftz displacement elements for three-dimensional elastodynamics.	0
347	Lipschitz regularization for fracture: The Lip-field approach. **2022**, 115644	0
346	Dedicated Boundary Element Modeling for Nanoparticle-on-Mirror Structures Incorporating Nonlocal Hydrodynamic Effects. 2200480	0

345	Multifield Modeling and Simulation of Nutrient Transport in Mechanically Stressed Meniscus Tissue. **2023**, 145,	1
344	Paleo stratigraphic permeability anisotropy controls supergene mimetic martite goethite deposits.	0
343	DLPFC stimulation alters large-scale brain networks connectivity during a drug cue reactivity task: A tDCS-fMRI study. 16,	0
342	Indirect all-quadrilateral meshing based on bipartite topological labeling.	0
341	A phase field method based on multi-level correction for eigenvalue topology optimization. **2022**, 401, 115646	0
340	Patient-specific solution of the electrocorticography forward problem in deforming brain. **2022**, 263, 119649	1
339	High-fidelity gradient-free optimization of low-pressure turbine cascades. **2022**, 248, 105668	0
338	On the interface matrix for fluid–structure interaction problems with fictitious domain approach. **2022**, 401, 115650	2
337	Influence of Mechanical Deformations on the Performance of a Coaxial Shield for a Cryogenic Current Comparator. **2022**, 32, 1-9	0
336	Numerical investigation of salt-frost damage of pervious concrete at the scale of a few aggregates. **2022**, 162, 106971	1
335	Source and metric estimation in the eikonal equation using optimization on a manifold. **2022**, 0	0
334	Automatic Framework for Patient-Specific Biomechanical Computations of Organ Deformation: An Epilepsy (EEG) Case Study. **2022**, 75-89	0
333	DeeptDCS: Deep Learning-Based Estimation of Currents Induced During Transcranial Direct Current Stimulation. **2022**, 1-11	0
332	Towards Real Time Thermal Simulations for Design Optimization using Graph Neural Networks. **2022**,	0
331	Topology Optimization of Asymmetric PMSM Rotor. **2022**,	0
330	An Improved Correlation for Dry Pressure Losses Across Static Mixers at High Reynolds Numbers.	0
329	Limitations of Baseline Impedance, Impedance Drop and Current for Radiofrequency Catheter Ablation Monitoring: Insights from In silico Modeling. **2022**, 9, 336	0
328	Fast Inverse Design of 3D Nanophotonic Devices Using Boundary Integral Methods.	0

327	Impact of Carbon Binder Domain on the Performance of Lithium-metal Batteries. **2022**, 169, 100550	0
326	Reinforcement learning for automatic quadrilateral mesh generation: A soft actor-critic approach. **2022**,	0
325	Object kinetic Monte Carlo modelling of irradiation microstructures with elastic interactions.	0
324	Transient changes during microwave ablation simulation : a comparative shape analysis.	0
323	Characterization of the pace-and-drive capacity of the human sinoatrial node: A 3D in´silico study. **2022**,	0
322	Validating a simulation model for laser-induced thermotherapy using MR thermometry. **2022**, 39, 1315-1326	0
321	Slowing down convective instabilities in corrugated CouettePoiseuille flow. **2022**, 950,	0
320	Simulation of Calcium Dynamics in Realistic Three-Dimensional Domains. **2022**, 12, 1455	0
319	Modelling on differential effect of age on transcranial magnetic stimulation induced electric fields.	0
318	Identifying soil-plant interactions in a mixed-age orange orchard using electrical resistivity imaging.	0
317	A three-dimensional model to describe complete human corneal oxygenation during contact lens wear.	0
316	Finite element level validation of an anisotropic hysteresis model for non-oriented electrical steel sheets. **2022**, 169978	0
315	Temperature distribution in a laser-heated diamond anvil cell as described by finite element analysis. **2022**, 12, 105218	0
314	Finite element method for the quasiclassical theory of superconductivity. **2022**, 106,	1
313	A fully non-invasive hybrid IGA/FEM scheme for the analysis of localized non-linear phenomena.	0
312	A MATLAB code of node-based topology optimization in 3D arbitrary domain for additive manufacturing. **2022**, 65,	0
311	Open-Source Computational Photonics with Auto Differentiable Topology Optimization. **2022**, 10, 3912	0
310	Numerical investigations of the bulk-surface wave pinning model. **2022**, 108925	0

309	A parallel adaptive finite-element approach for three-dimensional realistic controlled-source electromagnetic problems using hierarchical tetrahedral grids.	0
308	Some Peculiarities of Low-Frequency Hydroacoustic Signals Behavior in Tomographic Studies of Sea-Land-Sea System. **2022**, 10, 1550	0
307	Heat Conduction with Krylov Subspace Method Using FEniCSx. **2022**, 15, 8077	1
306	Selection of the Heat Transfer Coefficient Using Swarming Algorithms. **2022**, 16, 325-339	0
305	Rule-based definition of muscle bundles in patient-specific models of the left atrium. 13,	0
304	Three-dimensional simulations of sound propagation in a trumpet with accurate mouthpiece shank geometry. **2022**, 200, 109045	0
303	Output-weighted and relative entropy loss functions for deep learning precursors of extreme events. **2022**, 133570	0
302	Axial pulling of a neo-Hookean fiber embedded in a generalized neo-Hookean matrix. **2022**, 104292	0
301	Modelling of sediment plume associated with the capital dredging for sustainable mangrove ecosystem in the Old Mangalore Port, Karnataka, India. **2022**, 56, 102693	0
300	Design of electrical impedance spectroscopy sensing surgical drill using computational modelling and experimental validation.	0
299	Epicardial adipose tissue is associated with left atrial volume and fibrosis in patients with atrial fibrillation. 9,	0
298	Contour based on-device overlay metrology assessment using synthetic SEM images. **2022**,	0
297	Deep-learning prediction and uncertainty quantification for scramjet intake flowfields. **2022**, 130, 107931	0
296	Exasim: Generating discontinuous Galerkin codes for numerical solutions of partial differential equations on graphics processors. **2022**, 20, 101212	0
295	Impact of extracellular matrix and collagen network properties on the cervical intervertebral disc response to physiological loads: A parametric study. **2022**, 110, 103908	0
294	Phase-field regularised cohesive zone model for interface modelling. **2022**, 122, 103630	0
293	Reconciling asymmetry observations in the permeability tensor of digital rocks with symmetry expectations. **2022**, 170, 104334	0
292	Smart Cloud Collocation: Geometry-Aware Adaptivity Directly From CAD. **2023**, 154, 103409	0

291	A fast, high-order scheme for evaluating volume potentials on complex 2D geometries via area-to-line integral conversion and domain mappings. **2023**, 472, 111688	0
290	Waveguide finite element modelling for broadband vibration analysis of rotating and prestressed circular structures: Application to tyres. **2023**, 543, 117361	0
289	A new mixed finite element formulation for reorientation in liquid crystalline elastomers. **2023**, 97, 104828	1
288	A semi-implicit meshless method for incompressible flows in complex geometries. **2023**, 472, 111715	0
287	Weak Galerkin finite element method for linear elasticity interface problems. **2023**, 439, 127589	0
286	CommunicationExact Evaluation of Time Domain Physical Optics Integral for High Order Triangles. **2022**, 1-1	0
285	Second-Order Nǟlec Curl-Conforming Hexahedral Element for Computational Electromagnetics. **2022**, 1-1	0
284	Impact of structural uncertainty on tracer test design in faulted geothermal reservoirs. **2023**, 107, 102607	0
283	A reconstructed discontinuous approximation on unfitted meshes to H(curl) and H(. **2023**, 403, 115723	0
282	Modeling fracture propagation in poro-elastic media combining phase-field and discrete fracture models. **2023**, 403, 115699	0
281	Finite element geotechnical analysis incorporating deep learning-based soil model. **2023**, 154, 105120	1
280	Grid Generation and Algebraic Solvers. **2023**, 1383-1411	0
279	2D Eddy Current Boundary Value Problems for Power Cables with Helicoidal Symmetry. **2022**,	0
278	Multiscale Modelling of Materials With Strong Dynamic Hysteresis. **2022**,	0
277	Synergy of Fiber Surface Chemistry and Flow: Multi-Phase Transcrystallization in Fiber-Reinforced Thermoplastics. **2022**, 14, 4850	0
276	The effect of slip on the development of flow separation due to a bump in a channel. **2022**, 951,	0
275	Leveraging code generation for transparent immersogeometric fluid□structure interaction analysis on deforming domains.	0
274	Trace formulation for photonic inverse design with incoherent sources. **2022**, 65,	1

273	Numerical Investigation of the Effect of Tracheostomy on Flow and Particle Transport Characteristics in Human Airways.	1
272	Large Eddy Simulations of Turbulent Gas-Liquid Flows in a Diverging Horizontal Channel Using a Hybrid Multiphase Approach. **2022**, 1-38	0
271	A hole in Turing theory: pattern formation on the sphere with a hole.	0
270	Aerodynamic Shape Optimization of a Symmetric Airfoil from Subsonic to Hypersonic Flight Regimes. **2022**, 7, 353	0
269	Im2mesh: A Python Library to Reconstruct 3D Meshes from Scattered Data and 2D Segmentations. Application to Patient-Specific Neuroblastoma Tumour Image Sequences. **2022**, 12, 11557	1
268	Optimal Reduced Basis Method for Aeroacoustics with Impedance Boundary Conditions. 1-13	0
267	Nonlocal optimized schwarz methods for time-harmonic electromagnetics. **2022**, 48,	0
266	Two-level simulation of injection-induced fracture slip and wing-crack propagation in poroelastic media. **2022**, 160, 105248	0
265	Efficient dual-scale flow simulation for Resin Transfer Molding process based on domains skeletonization. **2022**, 107319	0
264	Flow and transport modeling in heterogeneous sediments using an integral approach.	0
263	LES and PIV Investigation of the Flow Past a Cactus-Shaped Cylinder with Four Ribs.	0
262	Richards equation at the hillslope scale: Can we resolve the heterogeneity of soil hydraulic material properties?.	0
261	Artificial Lossy Backgrounds to Improve Linear Electromagnetic Imaging inside of PEC Enclosures. **2022**, 1-5	0
260	Local Embedded Discrete Fracture Model (LEDFM). **2023**, 171, 104361	0
259	Finite Element Solution of a Solder Filling Problem with Contact Angle Condition. **2022**, 219-234	0
258	Identification of the anisotropic thermal conductivity by an inverse solution using the transient plane source method. **2023**, 206, 112252	0
257	A comprehensive characterization of fracture in unit cell open foams generated from Triply Periodic Minimal Surfaces. **2023**, 277, 108949	0
256	From biological morphogenesis to engineering joint design: A bio-inspired algorithm. **2023**, 225, 111466	0

255	Computational modeling and multiscale homogenization of short fiber composites considering complex microstructure and imperfect interfaces. **2023**, 306, 116592	0
254	Direct immersogeometric fluid flow and heat transfer analysis of objects represented by point clouds. **2023**, 404, 115742	0
253	Fast 3D computations of compressible flow discharge in buildings and complex networks. **2023**, 474, 111807	0
252	Integrated digital image correlation for mechanical characterization of carbon fiber-reinforced polymer plates. **2023**, 305, 116501	0
251	Mortaring for linear elasticity using mixed and stabilized finite elements. **2023**, 404, 115796	0
250	Strength-based material layout optimization of solid reinforced concrete. **2023**, 276, 106941	0
249	A concurrent fibre orientation and topology optimisation framework for 3D-printed fibre-reinforced composites. **2023**, 232, 109872	1
248	Shifted boundary polynomial corrections for compressible flows: high order on curved domains using linear meshes. **2023**, 441, 127698	0
247	Parallel BESO framework for solving high-resolution topology optimisation problems. **2023**, 176, 103389	0
246	Galerkin finite element method for a two-dimensional tempered time□pace fractional diffusion equation with application to a Bloch□Torrey equation retaining Larmor precession. **2023**, 206, 517-537	0
245	□MeRA: Computationally efficient adaptive mesh refinement of Monte Carlo mesh based tallies. **2023**, 182, 109617	0
244	Multiscale model reduction technique for fluid flows with heterogeneous porous inclusions. **2023**, 424, 114976	0
243	Partial learning using partially explicit discretization for multicontinuum/multiscale problems. Fractured poroelastic media simulation. **2023**, 424, 115003	0
242	Generalized Multiscale Finite Element Method for scattering problem in heterogeneous media. **2023**, 424, 114977	1
241	OpenSANS: A Semi-Analytical solver for Nonlocal plasmonicS. **2023**, 284, 108609	0
240	A fracture multiscale model for peridynamic enrichment within the partition of unity method. **2023**, 176, 103360	0
239	Structure-preserving discretization of Maxwell's equations as a port-Hamiltonian system. **2022**, 55, 424-429	1
238	An Efficient Methodology to Parse and Mesh Large Interconnect Layouts for Electromagnetic Analysis. **2022**,	0

237	Surface roughness in finite-element meshes:Application to plasmonic nanostructures.	0
236	Aerodynamic Shape Optimisation Using Parametric CAD and Discrete Adjoint. **2022**, 9, 743	0
235	Multi-material topology optimization using Wachspress interpolations for designing a 3-phase electrical machine stator. **2022**, 65,	0
234	Numerical Investigation of Flow Past Bio-Inspired Wavy Leading-Edge Cylinders. **2022**, 15, 8993	0
233	Ultraliser: a framework for creating multiscale, high-fidelity and geometrically realistic 3D models for in silico neuroscience.	0
232	Asynchronous Truncated Multigrid-Reduction-in-Time. S281-S306	0
231	The Electronic Disorder Landscape of Mixed Halide Perovskites. 250-258	0
230	Multiscale Simulations for Defect-Controlled Processing of Group IV Materials. **2022**, 12, 1701	0
229	Giant switchable non thermally-activated conduction in 180° domain walls in tetragonal Pb(Zr,Ti)O3. **2022**, 13,	0
228	Personalization of biomechanical simulations of the left ventricle by in-vivo cardiac DTI data: Impact of fiber interpolation methods. 13,	0
227	Global linear stability analysis of flow inside an axial swirl generator with a rotating vortex rope. 1-17	0
226	Dynamic Compression of a SiC Foam. **2022**, 15, 8363	0
225	A discontinuous Galerkin method for sequences of earthquakes and aseismic slip on multiple faults using unstructured curvilinear grids.	0
224	Genetic algorithm shape optimization to manipulate the nonlinear response of a clamped-clamped beam. **2022**, 8, e11833	0
223	Benefits of Cut-Off Barriers in Synchronous Reluctance Motors, Multi-Objective Comparison Based on Wide Design-Space Exploration. **2022**,	0
222	Influence of Spatially Distributed Out-of-Plane CFRP Fiber Waviness on the Estimation of Knock-Down Factors Based on Stochastic Numerical Analysis. **2022**, 6, 353	0
221	Characterization of the highly fractured zone at the Grimsel Test Site based on hydraulic tomography. **2022**, 26, 6443-6455	0
220	pyBaram: Parallel compressible flow solver in high-performance Python for teaching and research. **2022**, 20, 101272	0

219	Iterative solution methods for 3D controlled-source electromagnetic forward modelling of geophysical exploration scenarios.	0
218	Non-hydrostatic unified model of the ocean with application to ice/ocean interaction modeling. **2023**, 14,	0
217	A New Local Grid Reconstruction Algorithm for Cracking Simulation in Rock-Like Material.	0
216	A Controllability Method for Maxwell's Equations. **2022**, 44, A3700-A3727	0
215	Offshore landward motion shortly after a subduction earthquake implies rapid relocking of the shallow megathrust.	0
214	Experimental and numerical study of orthotropic behavior of 3D printed polylactic acid by material extrusion.	0
213	Graph neural network modeling of grain-scale anisotropic elastic behavior using simulated and measured microscale data. **2022**, 8,	0
212	Automatic unstructured mesh generation approach for simulation of electronic packaging system.	0
211	Residual Viscosity Stabilized RBF-FD Methods for Solving Nonlinear Conservation Laws. **2023**, 94,	0
210	Study of the Effect of External Magnetic Fields on the Parameters of the Electrical Communications Probing System for a Microtunneling Shield. **2022**, 7, 121	0
209	Euler-Lagrange Stochastic Modeling of Droplet Breakup and Impact in Supersonic Flight.	0
208	Precise motor mapping with transcranial magnetic stimulation.	0
207	Solving nonlinear Klein-Gordon equations on unbounded domains via the finite element method. **2022**, 106,	0
206	Electrical measurement of the spin Hall effect isotropy in ferromagnets with strong spin-orbit interactions. **2022**, 106,	0
205	Third-order accurate initialization of volume fractions on unstructured meshes with arbitrary polyhedral cells. **2022**, 111840	0
204	Machine Learning to Classify Vortex Wakes of Energy Harvesting Oscillating Foils. 1-11	0
203	Intense shear band plasticity in metallic glass as revealed by a diametral compression test. **2022**, 144533	0
202	Computing Weakly Singular and Near-Singular Integrals Over Curved Boundary Elements. **2022**, 44, A3728-A3753	

201	Robust topological construction of all-hexahedral boundary layer meshes.	0
200	MultiFEBE: A multi-domain finite element□boundary element solver for linear mixed-dimensional mechanical problems. **2022**, 20, 101265	0
199	Microwave-Based Subsurface Characterization through A Combined Finite Element and Variable Exponent Spaces Technique. **2023**, 23, 167	0
198	Full-field analysis of damage under complex thermomechanical loading. **2023**, 107513	0
197	Effective Preconditioners for Mixed-Dimensional Scalar Elliptic Problems. **2023**, 59,	0
196	The Impact of Standard Ablation Strategies for Atrial Fibrillation on Cardiovascular Performance in a Four-Chamber Heart Model.	0
195	A cohesive phase-field fracture model for chemo-mechanical environments: Studies on degradation in battery materials. **2023**, 103758	0
194	Sheath formation time for spherical Langmuir probes. **2023**, 89,	0
193	□ossils□A new, fast and open-source protocol to simulate muscle-driven biomechanical loading of bone.	0
192	A cell-based framework for modeling cardiac mechanics.	0
191	Multi-fidelity robust design optimization of an ORC turbine for high temperature waste heat recovery. **2023**, 126538	0
190	Real-Time Urban Flood Forecasting Systems for Southeast Asia□A Review of Present Modelling and Its Future Prospects. **2023**, 15, 178	0
189	Simulating Grain Shape Effects and Damage in Granular Media Using PeriDEM. **2023**, 45, B1-B26	0
188	Topology Optimization Using a Normalized Gaussian Network of Iron Yoke for Magnetic Field Design of an Accelerator Superconducting Magnet. **2023**, 1-5	0
187	CFD Comparison of the Influence of Casting of Samples on the Fiber Orientation Distribution. **2023**, 11, 6	0
186	Investigation of mass discharge rate, velocity, and segregation behaviour of microcrystalline cellulose powder from a Copley flow tester. **2023**, 118234	0
185	HODG:High-order Discontinuous Galerkin methods for solving compressible Euler and Navier-Stokes equations - An open-source component-based development framework. **2023**, 108660	0
184	2D Eddy Current Boundary Value Problems for Power Cables with Helicoidal Symmetry. **2023**, 1-1	0

183	Marine Litter Tracking System: A Case Study with Open-Source Technology and a Citizen Science-Based Approach. **2023**, 23, 935	1
182	Level-set-based method for designing novel brushed synchronous machines.	0
181	Assessment of a RANS Transition Model with Flapping Foils at Moderate Reynolds Numbers. **2023**, 8, 23	1
180	Discrete empirical interpolation for hyper-reduction of hydro-mechanical problems in groundwater flow through soil.	0
179	Sonomaglev: Combining acoustic and diamagnetic levitation. **2023**, 122, 014103	0
178	Toward High-Order CFD-DEM: Development and Validation. **2023**, 62, 1141-1159	1
177	Evolving microstructures in relaxed continuum damage mechanics for the modeling of strain softening. **2023**, 105199	0
176	Hybrid mesh for magnetotelluric forward modeling based on the finite element method. **2023**, 13,	0
175	Fast computational E-field dosimetry for transcranial magnetic stimulation using adaptive cross approximation and auxiliary dipole method (ACA-ADM). **2023**, 267, 119850	0
174	A web-based strategy to reuse grids in geographic modeling. **2023**, 116, 103170	0
173	Brainstorm-DUNEuro: An integrated and user-friendly Finite Element Method for modeling electromagnetic brain activity. **2023**, 267, 119851	0
172	Interference and ground effects on flow past two inclined flat plates in tandem arrangement. **2023**, 270, 113653	0
171	Structural electroneutrality in Onsager–Stefan–Maxwell transport with charged species. **2023**, 441, 141769	0
170	Instrumentation for correlated prompt n-emission studies in coincidence with fission fragments. **2023**, 1048, 168027	0
169	Extended reacting boundary modeling of porous materials with thin coverings for time-domain room acoustic simulations. **2023**, 548, 117550	1
168	Improved stencil selection for meshless finite difference methods in 3D. **2023**, 425, 115031	1
167	PyAlbany: A Python interface to the C++ multiphysics solver Albany. **2023**, 425, 115037	0
166	Numerical upscaling of parametric microstructures in a possibilistic uncertainty framework with tensor trains.	0

165	Indirect Positioning of a 3D Point on a Soft Object Using RGB-D Visual Servoing and a Mass-Spring Model. **2022**,	0
164	INVESTIGATION ON RAINFALL-RUNOFF AND FLOOD INUNDATION PROCESS IN THE KUMA RIVER BASIN DURING THE HEAVY RAINFALL IN JULY 2020. **2022**, 78, I_685-I_690	0
163	First Principles Codes and Analysis Environments for Vacuum Electronics Simulation. **2023**, 1-14	0
162	Topology optimization for fluid flow devices modeled through the Multiple Reference Frame approach. **2023**,	0
161	Mesh deep Q network: A deep reinforcement learning framework for improving meshes in computational fluid dynamics. **2023**, 13, 015026	0
160	Large Eddy Simulations of Isolated and Installed Jet Noise using the High-Order Discontinuous Galerkin Method. **2023**,	0
159	GPU-Accelerated High-Fidelity Implicit Large Eddy Simulations of Coanda Cylinder Flow Instabilities. **2023**,	0
158	A High-Order Fast Boundary Element Method with Near-Boundary Stability for Field Emission from Nanoscale Structures.	0
157	A Simple and Efficient Structural Topology Optimization Implementation Using Open-Source Software for All Steps of the Algorithm: Modeling, Sensitivity Analysis and Optimization. **2023**, 136, 1371-1397	0
156	Evaluation of the interFoam solver in the prediction of immiscible two-phase flow in imbibition and drainage on the pore-doublet system. **2023**, 366, 01017	0
155	Rebuilding the VKI Experiment on the Interference of a Free-Flying Ring and Stationary Cylinder Using a Multi-Fidelity Numerical Methodology. **2023**,	0
154	Efficient Shape Optimization via Parametric Model Embedding. **2023**,	0
153	A Mixed Discontinuous Galerkin Method for a Linear Viscoelasticity Problem With Strongly Imposed Symmetry. **2023**, 45, B27-B56	0
152	Integrating GPU-Accelerated Tetrahedral Mesh Editing and Simulation. **2023**, 24-42	0
151	m-NLP Inference Models Using Simulation and Regression Techniques. **2023**, 128,	0
150	Aerodynamic Comparison of Smooth Versus Bumpy Airfoil at Different Reynolds Number. **2023**,	0
149	A novel integrated framework for reproducible formability predictions using virtual materials testing. 2, 2	0
148	Multi Domain-Decomposed Reduced-Order Modelling of Steady Aerodynamics for 2D Store Separation Analysis. **2023**,	0

147	Aerodynamic Characteristics of a Thick Wind Turbine Airfoil with Boundary Layer Suction. **2023**,	0
146	An Energy-based Overset Finite Element Method for Pseudo-static Structural Analysis. **2023**, 94,	0
145	H-phi Formulation in Sparselizard Combined With Domain Decomposition Methods for Modeling Superconducting Tapes, Stacks, and Twisted Wires. **2023**, 1-5	0
144	Stress constrained topology optimization of energy storage flywheels using a specific energy formulation. **2023**, 61, 106733	0
143	Parametric Three-Dimensional Modeling of Underground Cable Channels on Flac3D/Python. **2022**,	0
142	Efficient Numerical Solution of Coupled Axisymmetric Plasma Equilibrium and Eddy Current Problems. **2023**, 11, 27489-27505	0
141	Deformation mode in 3-point flexure on pantographic block. **2023**, 265-266, 112129	0
140	The eXtreme Mesh deformation approach (X-MESH) for the Stefan phase change model. **2023**, 477, 111878	0
139	Role of magnetic field and bias configuration on HiPIMS deposition of W films. **2023**, 458, 129343	0
138	DeepBND: A machine learning approach to enhance multiscale solid mechanics. **2023**, 479, 111996	0
137	A sweeping algorithm of unstructured elements in discontinuous spectral element method for thermal radiation in irregular multidimensional geometries. **2023**, 45, 102976	0
136	Analytic Element-Finite Volume Based Coupled Groundwater-Surface Water Interaction model for Canal Command Systems.	0
135	A finite element study on the influence of surface cracks on micro-contact impedance spectroscopy measurements. **2023**, 393, 116173	0
134	Three-dimensional shape and stress field of a deformation twin in magnesium. **2023**, 250, 118845	0
133	Combustion modelling of sequential combustion in steam-methane reformation (SMR) furnace using adiabatic flamelet generated manifold. **2023**, 40, 101795	0
132	Stress-adaptive design of 2D contact interfaces with uniform pressure: A bio-inspired approach. **2023**, 270, 112238	0
131	A novel cost-efficient deep learning framework for static fluid–structure interaction analysis of hydrofoil in tidal turbine morphing blade. **2023**, 208, 367-384	0
130	Principled interpolation of Green's functions learned from data. **2023**, 409, 115971	0

129	The use of a time-fractional transport model for performing computational homogenisation of 2D heterogeneous media exhibiting memory effects. **2023**, 480, 112020	0
128	Pore-scale spatiotemporal dynamics of microbial-induced calcium carbonate growth and distribution in porous media. **2023**, 125, 103885	0
127	Stimulating human prefrontal cortex increases reward learning. **2023**, 271, 120029	0
126	Modeling of co-axial bubbles coalescence under moderate Reynolds regimes: A Bi-phase SPH approach. **2023**, 162, 104355	0
125	Hydro-morphodynamic modelling of mangroves imposed by tidal waves using finite element discontinuous Galerkin method. **2023**, 182, 104303	0
124	Improved hydrodynamic performance of an OWC device based on a Helmholtz resonator. **2023**, 273, 127299	0
123	: A high-order discontinuous Galerkin solver for flow simulations and multi-physics applications. **2023**, 287, 108700	0
122	Reaction□iffusion equation driven topology optimization of high-resolution and feature-rich structures using unstructured meshes. **2023**, 180, 103457	0
121	Modeling of irradiated dimensional change strain in MSR graphite moderator. **2023**, 407, 112277	0
120	Total longitudinal potential energy of interaction between parallel charged rods of finite size. **2023**, 659, 414847	0
119	Non-local integral-type damage combined to mean-field homogenization methods for composites and its parallel implementation. **2023**, 314, 116911	0
118	CNN-Based Surrogate for the Phase Field Damage Model: Generalization across Microstructure Parameters for Composite Materials. **2023**, 149,	0
117	A geometry model of the porcine stomach featuring mucosa and muscle layer thicknesses. **2023**, 142, 105801	0
116	A multiscale topology optimisation framework for hollow spheres as cellular materials. **2023**, 284, 115990	0
115	Understanding conditions for the single electron regime in 28˝nm FD-SOI quantum dots: Interpretation of experimental data with 3D quantum TCAD simulations. **2023**, 204, 108626	0
114	Multiscale solver for multi-component reaction□iffusion systems in heterogeneous media. **2023**, 427, 115150	0
113	Electromagnetic Simulation of No-Insulation Coils Using H □phi Thin Shell Approximation. **2023**, 33, 1-6	0
112	A finite element based heterogeneous multiscale method for the Landau-Lifshitz equation. **2023**, 486, 112112	0

111	An Open-Source Finite Element Quench Simulation Tool for Superconducting Magnets. **2023**, 33, 1-6	1
110	A hybrid domain overlapping method for coupling System Thermal Hydraulics and CFD codes. **2023**, 189, 109842	0
109	Modeling Eddy Current Losses in HTS Tapes Using Multiharmonic Method. **2023**, 33, 1-5	0
108	Fractured meshes. **2023**, 220, 103907	0
107	Physiological accuracy in simulating refractory cardiac tissue: the volume-averaged bidomain model vs. the cell-based EMI model.	0
106	Image data and computational grids for computing brain shift and solving the electrocorticography forward problem. **2023**, 48, 109122	0
105	Influences of steps in hybrid rocket engines:Simulation and validation on simplified geometries. **2023**, 208, 1-14	0
104	High order discontinuous Galerkin simulation of hypersonic shock-boundary layer interaction using subcell limiting approach. **2023**, 485, 112117	0
103	An ultrasound-exclusive non-invasive computational diagnostic framework for personalized cardiology of aortic valve stenosis. **2023**, 87, 102795	0
102	Temperature dependence of magnetization reversal mechanism in misch-metal substituted Nd-Fe-B magnets sintered by dual alloy method. **2023**, 246, 118710	0
101	Immersed boundary parametrizations for full waveform inversion. **2023**, 406, 115893	0
100	Generalized weak Galerkin methods for Stokes equations. **2023**, 134, 181-193	0
99	Laminar drag reduction ability of liquid-infused microchannels by considering different infused lubricants. **2023**, 158, 074702	1
98	Asynchronous global□cal non-invasive coupling for linear elliptic problems. **2023**, 406, 115910	0
97	Separable shape tensors for aerodynamic design. **2023**, 10, 468-487	0
96	Electric field simulations of transcranial direct current stimulation in children with perinatal stroke. 17,	0
95	Reduction in the Computational Complexity of Calculating Losses on Eddy Currents in a Hydrogen Fuel Cell Using the Finite Element Analysis. **2023**, 8, 38	0
94	Field evaluation of semi-automated moisture estimation from geophysics using machine learning. **2023**, 22,	0

93	Effective Electrical Properties and Fault Diagnosis of Insulating Oil Using the 2D Cell Method and NSGA-II Genetic Algorithm. **2023**, 23, 1685	0
92	Integrated digital image correlation for micro-mechanical parameter identification in multiscale experiments. **2023**, 267, 112130	0
91	A Graph-Based Algorithm for the Approximation of the Spectrum of the Curl Operator. **2023**, 45, A147-A169	0
90	A Reduced Basis Method for Darcy Flow Systems that Ensures Local Mass Conservation by Using Exact Discrete Complexes. **2023**, 94,	0
89	The Effects of Negative Periocular Pressure on Biomechanics of the Optic Nerve Head and Cornea: A Computational Modeling Study. **2023**, 12, 5	0
88	A multi-fidelity model management framework for multi-objective aerospace design optimisation. 2,	0
87	Flow Separation in Airfoils with Rough Leading Edges. **2023**, 61, 2035-2047	0
86	Artificial neural network to predict the power number of agitated tanks fed by CFD simulations.	0
85	Fast And Accurate Population Level Transcranial Magnetic Stimulation via Low-Rank Probabilistic Matrix Decomposition (PMD).	0
84	Vortex-Induced Vibrations of an Elastic Micro-Beam with Gas Modeled by DSMC. **2023**, 23, 1933	0
83	Designing a Multi-Agent PLM System for Threaded Connections Using the Principle of Isomorphism of Regularities of Complex Systems. **2023**, 11, 263	0
82	Towards a fully unstructured ocean model for ice shelf cavity environments: Model development and verification using the Firedrake finite element framework. **2023**, 182, 102178	0
81	Addressing Nanocomposite Systems via 3D-SCFT: Assessment of Smearing Approximation and Irregular Grafting Distributions. **2023**, 56, 1731-1746	0
80	Heat Transfer Correlations for Smooth and Rough Airfoils. **2023**, 8, 66	0
79	Pre-arranged sequences of micropillars for passive mixing control of water and ethanol. **2023**, 461, 141851	0
78	A structural model of the long-term degradation of the concrete biological shield. **2023**, 405, 112217	0
77	An a posteriori error estimator for the spectral fractional power of the Laplacian. **2023**, 407, 115943	0
76	Study of magnetoplasmons in graphene rings with two-dimensional finite element method. **2023**, 72, 087301	0

75	Scattering resonances in unbounded transmission problems with sign-changing coefficient.	0
74	A Gradient Microstructure Improves the Barrier Properties of Flake-Filled Composite Films: A Computational Study. **2023**, 16, 1691	0
73	A variational nodal formulation for multi-dimensional unstructured neutron diffusion problems. **2023**,	0
72	Analyzing data in complicated 3D domains: Smoothing, semiparametric regression, and functional principal component analysis.	0
71	Image-based Flow Simulation of Platelet Aggregates under Different Shear Rates.	0
70	Can Plate Bending Explain the Observed Faster Landward Motion of Lateral Regions of the Subduction Zone After Major Megathrust Earthquakes?. **2023**, 128,	0
69	Thermal thin shell approximation towards finite element quench simulation. **2023**, 36, 044004	1
68	Deep Q Network-Based Optimization Algorithm for Planar Delaunay Mesh. **2022**, 34, 1943-1950	0
67	Modeling fluid transport processes with discontinuous Galerkin methods: Implementation. **2023**, 209-223	0
66	Recovery by discretization corrected particle strength exchange (DC PSE) operators. **2023**, 448, 127923	0
65	Modeling fluid transport processes with finite volume methods. **2023**, 165-186	0
64	Evaluating a distance function. **2023**, 351, 1-11	0
63	A Fan-Controlled Sodium-to-Air Heat Exchanger Configuration for Failsafe Decay Heat Removal in Sodium-Cooled Fast Reactors. 1-16	0
62	Constraining Fault Damage Zone Properties From Geodesy: A Case Study Near the 2019 Ridgecrest Earthquake Sequence. **2023**, 50,	0
61	A Highly Scalable Direction-Splitting Solver on Regular Cartesian Grid to Compute Flows in Complex Geometries Described by STL Files. **2023**, 8, 86	0
60	Propagation of Acoustic Waves in Ducts with Flow Using the Multimodal Formulation. 1-13	0
59	Low electron density channel revealed in the plasma layer of hypersonic vehicle under a novel magnetic control. **2023**, 35, 036118	0
58	Life Prediction for Directed Energy Deposition-Manufactured 316L Stainless Steel using a Coupled Crystal Plasticity–Machine Learning Framework. 2201429	0

57	A thermodynamically consistent viscoelastic with rate-dependent damage constitutive model. **2023**, 269, 112198	0
56	Multilevel domain uncertainty quantification in computational electromagnetics. 1-45	0
55	AN IMPROVED APPROACH IN THE APPLICATIONOF AN ELASTIC-PLASTIC CONTACT FORCE MODELIN THE MODELLING OF MULTIPLE IMPACTS. **2023**, 303, 83-95	0
54	On the Effect of Scalar Flux Weighting of Linearly Anisotropic Scattering Matrices in Higher-Order Transport Calculations. 1-19	0
53	An Application of the Distributed-Order Time- and Space-Fractional Diffusion-Wave Equation for Studying Anomalous Transport in Comb Structures. **2023**, 7, 239	0
52	CVEM-BEM Coupling for the Simulation of Time-Domain Wave Fields Scattered by Obstacles with Complex Geometries. **2023**, 23, 353-372	1
51	Topology optimization for metal additive manufacturing: current trends, challenges, and future outlook. **2023**, 18,	0
50	Design optimization of multi-functional multi-lobe cryogenic fuel tank structures for hypersonic vehicles.	1
49	Complex motion of Greenland Ice Sheet outlet glaciers with basal temperate ice. **2023**, 9,	0
48	Can Stochastic Slip Rupture Modeling Produce Realistic M 9+ Events?. **2023**, 128,	0
47	Finite-Size Scaling for the Permeability of Discrete Fracture Networks. **2023**, 50,	0
46	The Design of a Python Library for the Automatic Definition and Simulation of Transient Ionization Fronts. **2023**, 11, 26577-26592	0
45	Topological nature of dislocation networks in two-dimensional moir materials. **2023**, 107,	0
44	Price Competition with Differentiated Products on a Two-Dimensional Plane: The Impact of Partial Cartel on Firms Profits and Behavior. **2023**, 14, 24	0
43	Spectroscopic signature of sublattice polarization in the lattice dynamics of an antiferroelectric crystal. **2023**, 5,	0
42	Seasonal Variability of the Ocean Circulation in Queen Charlotte Strait, British Columbia. 1-23	0
41	Introduction and verification of FEDM, an open-source FEniCS-based discharge modelling code. **2023**, 32, 044003	0
40	A Non-Column Based, Fully Unstructured Implementation of Kessler's Microphysics With Warm Rain Using Continuous and Discontinuous Spectral Elements. **2023**, 15,	0

39	A computationally efficient hybrid model to study ultrasonic wave propagation in long pipes with defects.	0
38	A phase-field model for non-small cell lung cancer under the effects of immunotherapy.	0
37	Advancements and prospects of boundary layer ingestion propulsion concepts. **2023**, 138, 100897	0
36	Tracking of fracture-state displacement data generated by cohesive zone modeling using shape optimization. **2023**, 22,	0
35	A phase field model for fractures in ice shelves. **2023**, 22,	0
34	Halevi's extension of the Euler-Drude model for plasmonic systems. **2023**, 107,	0
33	A new shape optimization approach for fracture propagation. **2023**, 22,	0
32	Validating MRI-Derived Myocardial Stiffness Estimates Using In Vitro Synthetic Heart Models.	0
31	Clots reveal anomalous elastic behavior of fiber networks.	0
30	Evaluation of Synthetic Jet Flow Control Technique for Modulating Turbulent Jet Noise. **2023**, 8, 110	0
29	A Computational Fluid Dynamics Investigation of a Flapping Hydrofoil as a Thruster. **2023**, 8, 135	0
28	Optimizing transcranial magnetic stimulation for spaceflight applications. **2023**, 9,	0
27	Time-continuous and time-discontinuous space-time finite elements for advection-diffusion problems.	0
26	Vortex states in a PbTiO$_3$ ferroelectric cylinder. **2023**, 14,	0
25	GMR-Net: GCN-based mesh refinement framework for elliptic PDE problems.	0
24	Reduced order mathematical homogenization method for´polycrystalline microstructure with microstructurally small cracks.	0
23	SlicerCBM: automatic framework for biomechanical analysis of the brain.	0
22	Direct Numerical Simulation of High Prandtl Number Fluid Flow in the Downcomer of an Advanced Reactor. 1-26	0

21	A verified and validated moving domain computational fluid dynamics solver with applications to cardiovascular flows.	0
20	A Scalable Algorithm for Shape Optimization with Geometric Constraints in Banach Spaces. **2023**, 45, B231-B251	0
19	Experimental validation of computational models for the prediction of phase distribution during multi-channel transcranial alternating current stimulation.	0
18	Simulating Isochromatic Fringes from Finite Element Results of FEniCS.	0
17	Stability, Accuracy and Recent Improvements. **2023**, 305-359	0
16	Contact and Fracture. **2023**, 227-303	0
15	Karamelo: A Multi-CPU/GPU C++ Parallel MPM Code. **2023**, 205-225	0
14	Hip joint load prediction using inverse bone remodeling with homogenized FE models: Comparison to micro-FE and influence of material modeling strategy. **2023**, 236, 107549	0
13	Training of Neural Network on Selectively Generated Data for Flow over Airfoils at Higher Angle of Attack. **2023**, 1-6	0
12	Anisotropic Subcutaneous Response During Fingertip Normal and Tangential Loadings.	0
11	A discrete adjoint full potential formulation for fast aerostructural optimization in preliminary aircraft design. **2023**, 138, 108332	0
10	Complex deformation of cartilage micropellets following mechanical stimulation promotes chondrocyte gene expression.	0
9	A Comparison of Three Different Flow Solvers For Simulating Steam Condensation Inside a Nozzle. **2023**, 181-186	0
8	Multi-physics simulation of 3D in-flight ice-shedding. **2023**, 115226	0
7	3D analytical and numerical upper-bound homogenization approaches to the in-plane strength domain of a running-bond masonry wall.	0
6	Experiments and finite element analysis on a hybrid polymer gear rack. **2023**, 186, 105363	0
5	Cartesian-MUSCL-like face-value reconstruction algorithm for solving the depth-averaged 2D shallow-water equations.	0
4	Investigation of the synergistic effect of materials and geometry on stress distribution in brittle adhesive joints submitted to lap-shear test. **2023**, 45,	0

3	Highly-parallelized simulation of a pixelated LArTPC on a GPU. **2023**, 18, P04034	0
2	Computed-tomography-based discrete fracture-matrix modeling: An integrated framework for deriving fracture networks. **2023**, 177, 104450	0
1	2-D FEM thermomechanical coupling in the analysis of a flexible eRoad subjected to thermal and traffic loading. 1-18	0