Peter Wriggers

List of Publications by Citations

491 papers	12,530 citations	59 h-index	93 g-index
525 ext. papers	14,056 ext. citations	3.1 avg, IF	7.08 L-index

#	Paper	IF	Citations
491	Computational Contact Mechanics **2006**,		557
490	Mesoscale models for concrete: Homogenisation and damage behaviour. *Finite Elements in Analysis and Design*, **2006**, 42, 623-636	2.2	422
489	Finite element formulation of large deformation impact-contact problems with friction. *Computers and Structures*, **1990**, 37, 319-331	4.5	289
488	A perturbed Lagrangian formulation for the finite element solution of contact problems. *Computer Methods in Applied Mechanics and Engineering*, **1985**, 50, 163-180	5.7	288
487	Finite element algorithms for contact problems. *Archives of Computational Methods in Engineering*, **1995**, 2, 1-49	7.8	202
486	Contact treatment in isogeometric analysis with NURBS. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 1100-1112	5.7	200
485	A general procedure for the direct computation of turning and bifurcation points. *International Journal for Numerical Methods in Engineering*, **1990**, 30, 155-176	2.4	199
484	A large deformation frictional contact formulation using NURBS-based isogeometric analysis. *International Journal for Numerical Methods in Engineering*, **2011**, 87, 1278-1300	2.4	169
483	A note on tangent stiffness for fully nonlinear contact problems. *Communications in Applied Numerical Methods*, **1985**, 1, 199-203		154
482	Consistent linearization for path following methods in nonlinear fe analysis. *Computer Methods in Applied Mechanics and Engineering*, **1986**, 59, 261-279	5.7	143
481	A virtual element method for contact. *Computational Mechanics*, **2016**, 58, 1039-1050	4	143
480	Frictionless 2D Contact formulations for finite deformations based on the mortar method. *Computational Mechanics*, **2005**, 36, 226-244	4	140
479	A simple method for the calculation of postcritical branches. *Engineering Computations*, **1988**, 5, 103-109	1.4	137
478	A new locking-free brick element technique for large deformation problems in elasticity. *Computers and Structures*, **2000**, 75, 291-304	4.5	132
477	A stabilization technique to avoid hourglassing in finite elasticity. *International Journal for Numerical Methods in Engineering*, **2000**, 48, 79-109	2.4	128
476	Nichtlineare Finite-Element-Methoden **2001**,		123
475	A note on enhanced strain methods for large deformations. *Computer Methods in Applied Mechanics and Engineering*, **1996**, 135, 201-209	5.7	122

474	A quadratically convergent procedure for the calculation of stability points in finite element analysis. *Computer Methods in Applied Mechanics and Engineering*, **1988**, 70, 329-347	5.7	121
473	Three-dimensional mortar-based frictional contact treatment in isogeometric analysis with NURBS. *Computer Methods in Applied Mechanics and Engineering*, **2012**, 209-212, 115-128	5.7	115
472	A mortar formulation for 3D large deformation contact using NURBS-based isogeometric analysis and the augmented Lagrangian method. *Computational Mechanics*, **2012**, 49, 1-20	4	108
471	Arbitrary Lagrangian Eulerian finite element analysis of free surface flow. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 190, 95-109	5.7	104
470	Real contact mechanisms and finite element formulation□ coupled thermomechanical approach. *International Journal for Numerical Methods in Engineering*, **1992**, 35, 767-785	2.4	103
469	Isogeometric large deformation frictionless contact using T-splines. *Computer Methods in Applied Mechanics and Engineering*, **2014**, 269, 394-414	5.7	100
468	Mortar based frictional contact formulation for higher order interpolations using the moving friction cone. *Computer Methods in Applied Mechanics and Engineering*, **2006**, 195, 5020-5036	5.7	98
467	Finite element analysis of pile installation using large-slip frictional contact. *Computers and Geotechnics*, **2005**, 32, 17-26	4.4	98
466	An interior-point algorithm for elastoplasticity. *International Journal for Numerical Methods in Engineering*, **2007**, 69, 592-626	2.4	96
465	Numerical homogenization of hardened cement paste. *Computational Mechanics*, **2008**, 42, 197-212	4	96
464	Contact constraints within coupled thermomechanical analysis□ finite element model. *Computer Methods in Applied Mechanics and Engineering*, **1994**, 113, 301-319	5.7	96
463	Isogeometric contact: a review. *GAMM Mitteilungen*, **2014**, 37, 85-123	1.8	94
462	Smooth C1-interpolations for two-dimensional frictional contact problems. *International Journal for Numerical Methods in Engineering*, **2001**, 51, 1469-1495	2.4	93
461	Finite deformation post-buckling analysis involving inelasticity and contact constraints. *International Journal for Numerical Methods in Engineering*, **1986**, 23, 779-800	2.4	91
460	Automation of Finite Element Methods **2016**,		89
459	A contact detection algorithm for superellipsoids based on the common-normal concept. *Engineering Computations*, **2008**, 25, 432-442	1.4	89
458	A mortar-based frictional contact formulation for large deformations using Lagrange multipliers. *Computer Methods in Applied Mechanics and Engineering*, **2009**, 198, 2860-2873	5.7	88
457	ON CONTACT BETWEEN THREE-DIMENSIONAL BEAMS UNDERGOING LARGE DEFLECTIONS. *Communications in Numerical Methods in Engineering*, **1997**, 13, 429-438		88

456	Large strain analysis of soft biological membranes: Formulation and finite element analysis. *Computer Methods in Applied Mechanics and Engineering*, **1996**, 132, 45-61	5.7	88
455	A two-scale model of granular materials. *Computer Methods in Applied Mechanics and Engineering*, **2012**, 205-208, 46-58	5.7	82
454	Homogenization in finite thermoelasticity. *Journal of the Mechanics and Physics of Solids*, **2011**, 59, 344-372	3	80
453	Contact with friction between beams in 3-D space. *International Journal for Numerical Methods in Engineering*, **2000**, 49, 977-1006	2.4	79
452	Finite element concepts for finite elastoplastic strains and isotropic stress response in shells: theoretical and computational analysis. *Computer Methods in Applied Mechanics and Engineering*, **1999**, 171, 243-279	5.7	76
451	Efficient virtual element formulations for compressible and incompressible finite deformations. *Computational Mechanics*, **2017**, 60, 253-268	4	75
450	Finite element modelling of orthotropic material behaviour in pneumatic membranes. *International Journal of Solids and Structures*, **2001**, 38, 9525-9544	3.1	75
449	Multi-scale approach for frictional contact of elastomers on rough rigid surfaces. *Computer Methods in Applied Mechanics and Engineering*, **2009**, 198, 1996-2008	5.7	73
448	Aspects of the computational testing of the mechanical properties of microheterogeneous material samples. *International Journal for Numerical Methods in Engineering*, **2001**, 50, 2573-2599	2.4	73
447	Phase-field modeling of brittle fracture using an efficient virtual element scheme. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 341, 443-466	5.7	71
446	On the computation of the macroscopic tangent for multiscale volumetric homogenization problems. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 198, 495-510	5.7	71
445	Thin shells with finite rotations formulated in biot stresses: Theory and finite element formulation. *International Journal for Numerical Methods in Engineering*, **1993**, 36, 2049-2071	2.4	71
444	Application of augmented Lagrangian techniques for non-linear constitutive laws in contact interfaces. *Communications in Numerical Methods in Engineering*, **1993**, 9, 815-824		71
443	A C1-continuous formulation for 3D finite deformation frictional contact. *Computational Mechanics*, **2002**, 29, 27-42	4	69
442	A two-level iteration method for solution of contact problems. *Computer Methods in Applied Mechanics and Engineering*, **1986**, 54, 131-144	5.7	69
441	A triangular finite shell element based on a fully nonlinear shell formulation. *Computational Mechanics*, **2003**, 31, 505-518	4	68
440	Theory and numerics of thin elastic shells with finite rotations. *Ingenieur-Archiv*, **1989**, 59, 54-67		68
439	3D corrected XFEM approach and extension to finite deformation theory. *International Journal for Numerical Methods in Engineering*, **2011**, 86, 431-452	2.4	66

438	On augmented Lagrangian algorithms for thermomechanical contact problems with friction. *International Journal for Numerical Methods in Engineering*, **1995**, 38, 2929-2949	2.4	64
437	NURBS- and T-spline-based isogeometric cohesive zone modeling of interface debonding. *Computational Mechanics*, **2014**, 54, 369-388	4	63
436	A segment-to-segment contact strategy. *Mathematical and Computer Modelling*, **1998**, 28, 497-515		63
435	A modified Gurson-type plasticity model at finite strains: formulation, numerical analysis and phase-field coupling. *Computational Mechanics*, **2018**, 62, 815-833	4	61
434	Formulation and analysis of a three-dimensional finite element implementation for adhesive contact at the nanoscale. *Computer Methods in Applied Mechanics and Engineering*, **2009**, 198, 3871-3883	5.7	61
433	Consistent gradient formulation for a stable enhanced strain method for large deformations. *Engineering Computations*, **1996**, 13, 103-123	1.4	61
432	Homogenization of granular material modeled by a three-dimensional discrete element method. *Computers and Geotechnics*, **2008**, 35, 394-405	4.4	59
431	An improved EAS brick element for finite deformation. *Computational Mechanics*, **2010**, 46, 641-659	4	57
430	A comparison of three-dimensional continuum and shell elements for finite plasticity. *International Journal of Solids and Structures*, **1996**, 33, 3309-3326	3.1	57
429	On the coupled thermomechanical treatment of necking problems via finite element methods. *International Journal for Numerical Methods in Engineering*, **1992**, 33, 869-883	2.4	57
428	Polygonal finite element methods for contact-impact problems on non-conformal meshes. *Computer Methods in Applied Mechanics and Engineering*, **2014**, 269, 198-221	5.7	56
427	A formulation for frictionless contact problems using a weak form introduced by Nitsche. *Computational Mechanics*, **2007**, 41, 407-420	4	55
426	Variational phase-field formulation of non-linear ductile fracture. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 342, 71-94	5.7	53
425	On enhanced strain methods for small and finite deformations of solids. *Computational Mechanics*, **1996**, 18, 413-428	4	53
424	Computational micro-macro material testing. *Archives of Computational Methods in Engineering*, **2001**, 8, 131-228	7.8	52
423	Stiffness and strength of hierarchical polycrystalline materials with imperfect interfaces. *Journal of the Mechanics and Physics of Solids*, **2012**, 60, 557-572	5	50
422	A new mixed finite element based on different approximations of the minors of deformation tensors. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 3583-3600	5.7	50
421	A method for solving contact problems. *International Journal for Numerical Methods in Engineering*, **1998**, 42, 473-498	2.4	50

420	An adaptive method for homogenization in orthotropic nonlinear elasticity. *Computer Methods in Applied Mechanics and Engineering*, **2007**, 196, 3409-3423	5.7	50
419	A domain decomposition method for bodies with heterogeneous microstructure basedon material regularization. *International Journal of Solids and Structures*, **1999**, 36, 2507-2525	3.1	50
418	A nonlocal cohesive zone model for finite thickness interfaces Part I: Mathematical formulation and validation with molecular dynamics. *Computational Materials Science*, **2011**, 50, 1625-1633	3.2	49
417	Computational homogenization of micro-structural damage due to frost in hardened cement paste. *Finite Elements in Analysis and Design*, **2008**, 44, 233-244	2.2	49
416	A DEM-FEM Coupling Approach for the Direct Numerical Simulation of 3D Particulate Flows. *Journal of Applied Mechanics, Transactions ASME*, **2012**, 79,	2.7	48
415	A note on the optimum choice for penalty parameters. *Communications in Applied Numerical Methods*, **1987**, 3, 581-585		48
414	An exact conserving algorithm for nonlinear dynamics with rotational DOFs and general hyperelasticity. Part 1: Rods. *Computational Mechanics*, **2008**, 42, 715-732	4	47
413	A multiscale contact homogenization technique for the modeling of third bodies in the contact interface. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 198, 377-396	5.7	47
412	Frictional contact between 3D beams. *Computational Mechanics*, **2002**, 28, 26-39	4	47
411	A low order virtual element formulation for finite elasto-plastic deformations. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 327, 459-477	5.7	46
410	IMPROVED ENHANCED STRAIN FOUR-NODE ELEMENT WITH TAYLOR EXPANSION OF THE SHAPE FUNCTIONS. *International Journal for Numerical Methods in Engineering*, **1997**, 40, 407-421	2.4	46
409	Response of a nonlinear elastic general Cosserat brick element in simulations typically exhibiting locking and hourglassing. *Computational Mechanics*, **2005**, 36, 255-265	4	46
408	A numerical model for thermomechanical contact based on microscopic interface laws. *Mechanics Research Communications*, **1992**, 19, 173-182	2.2	46
407	Approximation of incompressible large deformation elastic problems: some unresolved issues. *Computational Mechanics*, **2013**, 52, 1153-1167	4	45
406	A nonlocal cohesive zone model for finite thickness interfaces Part II: FE implementation and application to polycrystalline materials. *Computational Materials Science*, **2011**, 50, 1634-1643	3.2	45
405	Contact between 3D beams with rectangular cross-sections. *International Journal for Numerical Methods in Engineering*, **2002**, 53, 2019-2041	2.4	44
404	Adaptive Finite Elements for Elastic Bodies in Contact. *SIAM Journal of Scientific Computing*, **1999**, 20, 1605-1626	2.6	44
403	Computational thermal homogenization of concrete. *Cement and Concrete Composites*, **2013**, 35, 59-70	8.6	42

402	Error estimation for crack simulations using the XFEM. *International Journal for Numerical Methods in Engineering*, **2012**, 91, 1459-1474	2.4	41
401	A material model for rubber-like polymers exhibiting plastic deformation: computational aspects and a comparison with experimental results. *Computer Methods in Applied Mechanics and Engineering*, **1997**, 148, 279-298	5.7	41
400	An adaptive global–local approach for phase-field modeling of anisotropic brittle fracture. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 361, 112744	5.7	41
399	Multi-scale study of high-strength low-thermal-conductivity cement composites containing cenospheres. *Cement and Concrete Composites*, **2017**, 80, 91-103	8.6	40
398	3D multiscale crack propagation using the XFEM applied to a gas turbine blade. *Computational Mechanics*, **2014**, 53, 173-188	4	40
397	A note on finite-element implementation of pressure boundary loading. *Communications in Applied Numerical Methods*, **1991**, 7, 513-525		40
396	Nonlinear Dynamics of Shells: Theory, Finite Element Formulation, and Integration Schemes. *Nonlinear Dynamics*, **1997**, 13, 279-305	5	39
395	A computational study of interfacial debonding damage in fibrous composite materials. *Computational Materials Science*, **1998**, 12, 39-56	3.2	39
394	A fully nonlinear multi-parameter shell model with thickness variation and a triangular shell finite element. *Computational Mechanics*, **2004**, 34, 181	4	39
393	A fully non-linear axisymmetrical membrane element for rubber-like materials. *Engineering Computations*, **1990**, 7, 303-310	1.4	39
392	Phase-field modeling of porous-ductile fracture in non-linear thermo-elasto-plastic solids. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 361, 112730	5.7	39
391	An adaptive multiscale method for crack propagation and crack coalescence. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 23-51	2.4	38
390	Computational and theoretical aspects of a grain-boundary model that accounts for grain misorientation and grain-boundary orientation. *Computational Materials Science*, **2016**, 111, 443-459	3.2	37
389	An adaptive multiscale resolution strategy for the finite deformation analysis of microheterogeneous structures. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 2639-2661	5.7	37
388	Computational Contact Mechanics **2004**,		37
387	A method of substructuring large-scale computational micromechanical problems. *Computer Methods in Applied Mechanics and Engineering*, **2001**, 190, 5639-5656	5.7	37
386	A new algorithm for numerical solution of 3D elastoplastic contact problems with orthotropic friction law. *Computational Mechanics*, **2004**, 34, 1	4	36
385	A finite element method for stability problems in finite elasticity. *International Journal for Numerical Methods in Engineering*, **1995**, 38, 1171-1200	2.4	36

384	A machine learning based plasticity model using proper orthogonal decomposition. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 365, 113008	5.7	36
383	A Virtual Element Method for 2D linear elastic fracture analysis. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 340, 366-395	5.7	35
382	Algorithms for non-linear contact constraints with application to stability problems of rods and shells. *Computational Mechanics*, **1987**, 2, 215-230	4	35
381	Computational homogenization of rubber friction on rough rigid surfaces. *Computational Materials Science*, **2013**, 77, 264-280	3.2	34
380	Random homogenization analysis in linear elasticity based on analytical bounds and estimates. *International Journal of Solids and Structures*, **2011**, 48, 280-291	3.1	34
379	VIRTUAL ELEMENT FORMULATION FOR PHASE-FIELD MODELING OF DUCTILE FRACTURE. *International Journal for Multiscale Computational Engineering*, **2019**, 17, 181-200	2.4	33
378	Multiscale diffusion□thermal□mechanical cohesive zone model for concrete. *Computational Mechanics*, **2015**, 55, 999-1016	4	33
377	A master-surface to master-surface formulation for beam to beam contact. Part I: frictionless interaction. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 303, 400-429	5.7	33
376	A new axisymmetrical membrane element for anisotropic, finite strain analysis of arteries. *Communications in Numerical Methods in Engineering*, **1996**, 12, 507-517		33
375	A finite element method for contact using a third medium. *Computational Mechanics*, **2013**, 52, 837-847	4	32
374	Stochastic multiscale homogenization analysis of heterogeneous materials under finite deformations with full uncertainty in the microstructure. *Computational Mechanics*, **2015**, 55, 819-835	4	31
373	Self-contact modeling on beams experiencing loop formation. *Computational Mechanics*, **2015**, 55, 193-208	4	31
372	Comparison of the macroscopic behavior of granular materials modeled by different constitutive equations on the microscale. *Finite Elements in Analysis and Design*, **2008**, 44, 259-271	2.2	31
371	Numerical derivation of contact mechanics interface laws using a finite element approach for large 3D deformation. *International Journal for Numerical Methods in Engineering*, **2004**, 59, 173-195	2.4	31
370	An XFEM approach for modelling delamination in composite laminates. *Composite Structures*, **2016**, 135, 353-364	5.3	30
369	A superlinear convergent augmented Lagrangian procedure for contact problems. *Engineering Computations*, **1999**, 16, 88-119	1.4	30
368	A formulation for the 4-node quadrilateral element. *International Journal for Numerical Methods in Engineering*, **1995**, 38, 3007-3037	2.4	30
367	A computational framework for brittle crack-propagation based on efficient virtual element method. *Finite Elements in Analysis and Design*, **2019**, 159, 15-32	2.2	29

366	Multiscale FEM approach for hysteresis friction of rubber on rough surfaces. *Computer Methods in Applied Mechanics and Engineering*, **2015**, 296, 150-168	5.7	29
365	Multiscale hydro-thermo-chemo-mechanical coupling: Application to alkali–silica reaction. *Computational Materials Science*, **2014**, 84, 381-395	3.2	29
364	A finite element model for contact analysis of multiple Cosserat bodies. *Computational Mechanics*, **2005**, 36, 444-458	4	29
363	A model for simulating the deterioration of structural-scale material responses of microheterogeneous solids. *Computer Methods in Applied Mechanics and Engineering*, **2001**, 190, 2803-2823	5.7	29
362	Degradation behaviour of LAE442-based plate-screw-systems in an in vitro bone model. *Materials Science and Engineering C*, **2015**, 49, 305-315	8.3	28
361	Different a posteriori error estimators and indicators for contact problems. *Mathematical and Computer Modelling*, **1998**, 28, 437-447		28
360	A low order 3D virtual element formulation for finite elasto–plastic deformations. *Computational Mechanics*, **2019**, 63, 253-269	4	27
359	An exact conserving algorithm for nonlinear dynamics with rotational DOFs and general hyperelasticity. Part 2: shells. *Computational Mechanics*, **2011**, 48, 195-211	4	27
358	A new finite element based on the theory of a Cosserat point–extension to initially distorted elements for 2D plane strain. *International Journal for Numerical Methods in Engineering*, **2007**, 71, 454-472	2.4	27
357	Development of a wrinkling algorithm for orthotropic membrane materials. *Computer Methods in Applied Mechanics and Engineering*, **2005**, 194, 2550-2568	5.7	27
356	A novel mixed finite element for finite anisotropic elasticity; the SKA-element Simplified Kinematics for Anisotropy. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 310, 475-494	5.7	27
355	Processing and coating of open-pored absorbable magnesium-based bone implants. *Materials Science and Engineering C*, **2019**, 98, 1073-1086	8.3	26
354	The neural particle method – An updated Lagrangian physics informed neural network for computational fluid dynamics. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 368, 113127	5.7	26
353	A finite deformation brick element with inhomogeneous mode enhancement. *International Journal for Numerical Methods in Engineering*, **2009**, 78, 1164-1187	2.4	26
352	On the adaptive finite element method of steady-state rolling contact for hyperelasticity in finite deformations. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 1333-1348	5.7	26
351	An energy–momentum integration scheme and enhanced strain finite elements for the non-linear dynamics of shells. *International Journal of Non-Linear Mechanics*, **2002**, 37, 951-966	2.8	26
350	An efficient 3D enhanced strain element with Taylor expansion of the shape functions. *Computational Mechanics*, **1996**, 19, 30-40	4	26
349	A nonlinear composite shell element with continuous interlaminar shear stresses. *Computational Mechanics*, **1993**, 13, 175-188	4	26

348	A global–local approach for hydraulic phase-field fracture in poroelastic media. *Computers and Mathematics With Applications*, **2021**, 91, 99-121	2.7	26
347	Thermal contact conductance characterization via computational contact homogenization: A finite deformation theory framework. *International Journal for Numerical Methods in Engineering*, **2010**, 83, 27-58	2.4	25
346	Thermomechanical contact—a rigorous but simple numerical approach. *Computers and Structures*, **1993**, 46, 47-53	4.5	25
345	A description of macroscopic damage through microstructural relaxation. *International Journal for Numerical Methods in Engineering*, **1998**, 43, 493-506	2.4	24
344	A nonlinear quadrilateral shell element with drilling degrees of freedom. *Archive of Applied Mechanics*, **1992**, 62, 474-486	2.2	24
343	Improved numerical algorithms for frictional contact in pile penetration analysis. *Computers and Geotechnics*, **2006**, 33, 341-354	4.4	23
342	On the design of energy–momentum integration schemes for arbitrary continuum formulations. Applications to classical and chaotic motion of shells. *International Journal for Numerical Methods in Engineering*, **2004**, 60, 2419-2440	2.4	23
341	Efficient integration of crack singularities in the extended finite element method: Duffy-distance transformation and conformal preconditioning strategy. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 340, 559-576	5.7	22
340	A FORMULATION OF THE QS6 ELEMENT FOR LARGE ELASTIC DEFORMATIONS. *International Journal for Numerical Methods in Engineering*, **1996**, 39, 1437-1454	2.4	22
339	Stability of rods with unilateral constraints, a finite element solution. *Computers and Structures*, **1984**, 19, 205-211	4.5	22
338	Isogeometric symmetric Galerkin boundary element method for three-dimensional elasticity problems. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 323, 132-150	5.7	21
337	Application of Frictional Contact in Geotechnical Engineering. *International Journal of Geomechanics*, **2007**, 7, 176-185	3.1	21
336	Intelligent support of engineering analysis using ontology and case-based reasoning. *Engineering Applications of Artificial Intelligence*, **2007**, 20, 709-720	7.2	21
335	Thermo-mechanical behaviour of rubber materials during vulcanization. *International Journal of Solids and Structures*, **2005**, 42, 4758-4778	3.1	21
334	Finite element methods for contact problems with friction. *Tribology International*, **1996**, 29, 651-658	4.9	21
333	Generating virtual process maps of SLM using powder-scale SPH simulations. *Computational Particle Mechanics*, **2020**, 7, 655-677	3	21
332	A master-surface to master-surface formulation for beam to beam contact. Part II: Frictional interaction. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 319, 146-174	5.7	20
331	Numerical multiscale modelling and experimental validation of low speed rubber friction on rough road surfaces including hysteretic and adhesive effects. *Tribology International*, **2017**, 111, 243-253	4.9	20

330	Random homogenization analysis for heterogeneous materials with full randomness and correlation in microstructure based on finite element method and Monte-carlo method. *Computational Mechanics*, **2014**, 54, 1395-1414	4	20
329	Adaptive finite element techniques for frictional contact problems involving large elastic strains. *Computer Methods in Applied Mechanics and Engineering*, **1998**, 151, 593-603	5.7	20
328	Calculation of impact-contact problems of thin elastic shells taking into account geometrical nonlinearities within the contact region. *Computer Methods in Applied Mechanics and Engineering*, **1982**, 34, 861-880	5.7	20
327	Finite element formulations for large strain anisotropic material with inextensible fibers. *Advanced Modeling and Simulation in Engineering Sciences*, **2016**, 3,	2.7	20
326	Finite strain response of crimped fibers under uniaxial traction: An analytical approach applied to collagen. *Journal of the Mechanics and Physics of Solids*, **2017**, 98, 429-453	5	19
325	Virtual elements for finite thermo-plasticity problems. *Computational Mechanics*, **2019**, 64, 1347-1360	4	19
324	Sensitivity analysis for the mechanics of tendons and ligaments: Investigation on the effects of collagen structural properties via a multiscale modeling approach. *International Journal for Numerical Methods in Biomedical Engineering*, **2019**, 35, e3209	2.6	19
323	Metal particle fusion analysis for additive manufacturing using the stabilized optimal transportation meshfree method. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 339, 91-114	5.7	19
322	2D contact smooth formulation based on the mortar method. *Computer Methods in Applied Mechanics and Engineering*, **2012**, 247-248, 1-14	5.7	19
321	Comparative crash simulations incorporating the results of sheet forming analyses. *Engineering Computations*, **2001**, 18, 744-758	1.4	19
320	Investigation of heat source modeling for selective laser melting. *Computational Mechanics*, **2019**, 63, 949-970	4	19
319	Virtual element formulation for isotropic damage. *Finite Elements in Analysis and Design*, **2018**, 144, 38-48	3.2	18
318	Stabilization algorithm for the optimal transportation meshfree approximation scheme. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 329, 421-443	5.7	18
317	A chemo-mechano-biological formulation for the effects of biochemical alterations on arterial mechanics: the role of molecular transport and multiscale tissue remodelling. *Journal of the Royal Society Interface*, **2017**, 14,	4.1	18
316	Contact between rolling beams and flat surfaces. *International Journal for Numerical Methods in Engineering*, **2014**, 97, 683-706	2.4	18
315	Computational homogenization of polycrystalline materials with the Virtual Element Method. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 355, 349-372	5.7	17
314	On the optimality of the window method in computational homogenization. *International Journal of Engineering Science*, **2013**, 64, 66-73	5.7	17
313	A contact layer element for large deformations. *Computational Mechanics*, **2015**, 55, 873-885	4	17

312	Methods to project plasticity models onto the contact surface applied to soil structure interactions. *Computers and Geotechnics*, **2015**, 65, 187-198	4.4	17
311	Stochastic homogenized effective properties of three-dimensional composite material with full randomness and correlation in the microstructure. *Computers and Structures*, **2014**, 144, 62-74	4.5	17
310	Error controlled adaptive multiscale XFEM simulation of cracks. *International Journal of Fracture*, **2012**, 178, 147-156	2.3	17
309	A numerical investigation of the interplay between cohesive cracking and plasticity in polycrystalline materials. *Computational Materials Science*, **2013**, 77, 81-92	3.2	17
308	Structural dynamic optimal design based on dynamic reliability. *Engineering Structures*, **2011**, 33, 468-476	4.7	17
307	Nonlinear stability-analysis of shell and contact-problems including branch-switching. *Computational Mechanics*, **1990**, 5, 428-446	4	17
306	Node-to-segment and node-to-surface interface finite elements for fracture mechanics. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 300, 540-560	5.7	16
305	Reliability-based optimization of trusses with random parameters under dynamic loads. *Computational Mechanics*, **2011**, 47, 627-640	4	16
304	The analyses of dynamic response and reliability of fuzzy-random truss under stationary stochastic excitation. *Computational Mechanics*, **2010**, 45, 443-455	4	16
303	Inelastic analysis of granular interfaces via computational contact homogenization. *International Journal for Numerical Methods in Engineering*, **2010**, 84, 883-915	2.4	16
302	Consistent coupling of beam and shell models for thermo-elastic analysis. *International Journal for Numerical Methods in Engineering*, **2004**, 59, 1861-1878	2.4	16
301	A simple formulation for two-dimensional contact problems using a moving friction cone. *Communications in Numerical Methods in Engineering*, **2003**, 19, 285-295		16
300	An h-adaptive method for elasto-plastic shell problems. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 189, 651-671	5.7	16
299	An adaptive finite element algorithm for contact problems in plasticity. *Computational Mechanics*, **1995**, 17, 88-97	4	16
298	A fully non-linear axisymmetrical quasi-kirchhoff-type shell element for rubber-like materials. *International Journal for Numerical Methods in Engineering*, **1993**, 36, 4027-4043	2.4	16
297	Peridynamic Petrov□alerkin method: A generalization of the peridynamic theory of correspondence materials. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 358, 112636	5.7	16
296	A fatigue damage accumulation model for reliability analysis of engine components under combined cycle loadings. *Fatigue and Fracture of Engineering Materials and Structures*, **2020**, 43, 1880-1892	3	15
295	3D ductile crack propagation within a polycrystalline microstructure using XFEM. *Computational Mechanics*, **2018**, 61, 71-88	4	15

294	A multi-scale computational method including contact for the analysis of damage in composite materials. *Computational Materials Science*, **2014**, 95, 522-535	3.2	15
293	Crack face contact for a hexahedral-based XFEM formulation. *Computational Mechanics*, **2012**, 49, 725-734	4	15
292	Continuum Mechanics, Nonlinear Finite Element Techniques and Computational Stability **1993**, 245-287		15
291	Computing pointwise contact between bodies: a class of formulations based on master–master approach. *Computational Mechanics*, **2019**, 64, 585-609	4	14
290	An ALE method for penetration into sand utilizing optimization-based mesh motion. *Computers and Geotechnics*, **2015**, 65, 241-249	4.4	14
289	Material instabilities of an incompressible elastic cube under triaxial tension. *International Journal of Solids and Structures*, **1997**, 34, 3433-3454	3.1	14
288	Advection approaches for single- and multi-material arbitrary Lagrangian–Eulerian finite element procedures. *Computational Mechanics*, **2006**, 39, 153-190	4	14
287	Adaptive methods for thermomechanical coupled contact problems. *International Journal for Numerical Methods in Engineering*, **2004**, 59, 871-894	2.4	14
286	Efficient modeling of filled rubber assuming stress-induced microscopic restructurization. *International Journal of Engineering Science*, **2020**, 151, 103291	5.7	14
285	An advanced abrasion model for tire wear. *Wear*, **2018**, 396-397, 75-85	3.5	14
284	Serendipity virtual element formulation for nonlinear elasticity. *Computers and Structures*, **2019**, 223, 106094	4.5	13
283	A parallel algebraic multigrid solver for problems in solid mechanics discretisized by finite elements. *Computers and Structures*, **1998**, 69, 129-137	4.5	13
282	On the treatment of nonlinear unilateral contact problems. *Archive of Applied Mechanics*, **1993**, 63, 116-129	2.2	13
281	A simulation model for the degradation of magnesium-based bone implants. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 101, 103411	4.1	13
280	Mesoscale constitutive modeling of non-crystallizing filled elastomers. *Computational Mechanics*, **2016**, 57, 653-677	4	12
279	Asymptotic upper bounds for the errors of Richardson extrapolation with practical application in approximate computations. *International Journal for Numerical Methods in Engineering*, **2009**, 80, 565-595	2.4	12
278	Numerical modeling of electrical contacts. *Computational Mechanics*, **2010**, 46, 301-314	4	12
277	Feed-Forward Neural Networks for Failure Mechanics Problems. *Applied Sciences (Switzerland)*, **2021**, 11, 6483	2.6	12

276	A Selection of Benchmark Problems in Solid Mechanics and Applied Mathematics. *Archives of Computational Methods in Engineering*, **2021**, 28, 713-751	7.8	12
275	On the stability analysis of hyperelastic boundary value problems using three- and two-field mixed finite element formulations. *Computational Mechanics*, **2017**, 60, 479-492	4	11
274	Curvilinear virtual elements for contact mechanics. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 372, 113394	5.7	11
273	Direct and inverse identification of constitutive parameters from the structure of soft tissues. Part 1: micro- and nanostructure of collagen fibers. *Biomechanics and Modeling in Mechanobiology*, **2018**, 17, 1011-1036	3.8	11
272	Numerical simulation and experimental validation of biofilm in a multi-physics framework using an SPH based method. *Computational Mechanics*, **2016**, 58, 619-633	4	11
271	Delamination growth in composite laminates of variable stiffness. *International Journal for Numerical Methods in Engineering*, **2016**, 108, 1406-1424	2.4	11
270	Study on Contact Characteristic of Nanoscale Asperities by Using Molecular Dynamics Simulations. *Journal of Tribology*, **2009**, 131,	1.8	11
269	On the symmetric boundary element method and the symmetric coupling of boundary elements and finite elements. *IMA Journal of Numerical Analysis*, **1997**, 17, 201-238	1.8	11
268	Adaptive methods for frictionless contact problems. *Computers and Structures*, **2001**, 79, 2197-2208	4.5	11
267	A strategy for numerical testing of frictional laws with application to contact between soil and concrete. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 190, 963-977	5.7	11
266	An axisymmetrical quasi-Kirchhoff-type shell element for large plastic deformations. *Archive of Applied Mechanics*, **1995**, 65, 465-477	2.2	11
265	Experimental studies on the disappearance of subretinal fluid after episcleral buckling procedures without drainage. *Graefe's Archive for Clinical and Experimental Ophthalmology*, **1987**, 225, 16-8	3.8	11
264	Molecular-level collagen damage explains softening and failure of arterial tissues: A quantitative interpretation of CHP data with a novel elasto-damage model. *Journal of the Mechanical Behavior of Biomedical Materials*, **2019**, 97, 254-271	4.1	10
263	Nonlinear discontinuous Petrov–Galerkin methods. *Numerische Mathematik*, **2018**, 139, 529-561	2.2	10
262	On the computational aspects of comminution in discrete element method. *Computational Particle Mechanics*, **2018**, 5, 175-189	3	10
261	Experimental characterization and computational modeling of hydrogel cross-linking for bioprinting applications. *International Journal of Artificial Organs*, **2019**, 42, 548-557	1.9	10
260	Geometric adaption of biodegradable magnesium alloy scaffolds to stabilise biological myocardial grafts. Part I. *Journal of Materials Science: Materials in Medicine*, **2014**, 25, 909-16	4.5	10
259	Direct computation of instability points for contact problems. *Computational Mechanics*, **2003**, 31, 173-178	4	10

258	Self□Actuating SMA□HPFRC Fuses for Auto□Adaptive Composite Structures. *Computer-Aided Civil and Infrastructure Engineering*, **2003**, 18, 78-94	8.4	10
257	On practical integration of semi-discretized nonlinear equations of motion. Part 1: reasons for probable instability and improper convergence. *Journal of Sound and Vibration*, **2005**, 284, 705-731	3.9	10
256	A 3D beam-to-beam contact finite element for coupled electric□mechanical fields. *International Journal for Numerical Methods in Engineering*, **2005**, 64, 1800-1815	2.4	10
255	A finite element approach to the chaotic motion of geometrically exact rods undergoing in-plane deformations. *Nonlinear Dynamics*, **1996**, 11, 189-212	5	10
254	On the stabilization of the rectangular 4-node quadrilateral element. *Communications in Numerical Methods in Engineering*, **1994**, 10, 555-563		10
253	Mixed Finite Element Methods - Theory and Discretization. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2009**, 131-177	0.6	10
252	A combined adaptive phase field and discrete cutting method for the prediction of crack paths. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 372, 113329	5.7	10
251	A cover-based contact detection approach for irregular convex polygons in discontinuous deformation analysis. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2021**, 45, 208-233	4	10
250	Contact between spheres and general surfaces. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 328, 686-716	5.7	9
249	Fiber-reinforced materials: finite elements for the treatment of the inextensibility constraint. *Computational Mechanics*, **2017**, 60, 905-922	4	9
248	Reduction Methods for FE Analysis in Nonlinear Structural Dynamics. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 135-136	0.2	9
247	Adaptive finite element analysis of fractal interfaces in contact problems. *Computer Methods in Applied Mechanics and Engineering*, **2000**, 182, 17-37	5.7	9
246	On the incompressible constraint of the 4-node quadrilateral element. *International Journal for Numerical Methods in Engineering*, **1995**, 38, 3039-3053	2.4	9
245	A novel stress-induced anisotropic growth model driven by nutrient diffusion: Theory, FEM implementation and applications in bio-mechanical problems. *Journal of the Mechanics and Physics of Solids*, **2020**, 144, 104097	5	9
244	A Review on Cementitious Self-Healing and the Potential of Phase-Field Methods for Modeling Crack-Closing and Fracture Recovery. *Materials*, **2020**, 13,	3.5	9
243	A general phase-field model for fatigue failure in brittle and ductile solids. *Computational Mechanics*, **2021**, 67, 1431-1452	4	9
242	Micro□macro constitutive modeling and finite element analytical-based formulations for fibrous materials: A multiscale structural approach for crimped fibers. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 344, 938-969	5.7	9
241	Comparison of degradation behaviour and osseointegration of the two magnesium scaffolds, LAE442 and La2, in vivo. *Materialia*, **2019**, 8, 100436	3.2	8

240	A computational homogenization framework for soft elastohydrodynamic lubrication. *Computational Mechanics*, **2012**, 49, 749-767	4	8
239	A finite element method for plane stress problems with large elastic and plastic deformations. *Communications in Numerical Methods in Engineering*, **1997**, 13, 963-976		8
238	Intelligent support of the preprocessing stage of engineering analysis using case-based reasoning. *Engineering With Computers*, **2008**, 24, 383-404	4.5	8
237	THE MOVING FRICTION CONE APPROACH FOR THREE-DIMENSIONAL CONTACT SIMULATIONS. *International Journal of Computational Methods*, **2004**, 01, 105-119	1.1	8
236	A finite element post-processed Galerkin method for dimensional reduction in the non-linear dynamics of solids. Applications to shells. *Computational Mechanics*, **2003**, 32, 104-114	4	8
235	On Smooth Finite Element Discretizations for Frictional Contact Problems. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2000**, 80, 77-80	1	8
234	Wasserinduzierte Sch□digungsmechanismen zyklisch beanspruchter Hochleistungsbetone/Water-induced damage mechanisms of cyclically loaded High-performance concretes. *Bauingenieur*, **2020**, 95, 126-132	1.7	8
233	Technische Mechanik. *Springer-Lehrbuch*, **1993**,	0.4	8
232	On Consistent Tangent Matrices for Frictional Contact Problems **1987**, 635-642		8
231	A virtual element formulation for general element shapes. *Computational Mechanics*, **2020**, 66, 963-977	4	8
230	Computation of Effective Cement Paste Diffusivities from Microtomographic Images. *Computational Methods in Applied Sciences (Springer)*, **2008**, 281-297	0.4	8
229	Mechanics of Materials □Formulas and Problems **2017**,		7
228	Modelling of serrated chip formation processes using the stabilized optimal transportation meshfree method. *International Journal of Mechanical Sciences*, **2019**, 155, 323-333	5.5	7
227	Magnesium Alloys for Open-Pored Bioresorbable Implants. *Jom*, **2020**, 72, 1859-1869	2.1	7
226	Isogeometric frictionless contact analysis with the third medium method. *Computational Mechanics*, **2018**, 62, 1009-1021	4	7
225	Efficient Low Order Virtual Elements for Anisotropic Materials at Finite Strains. *Computational Methods in Applied Sciences (Springer)*, **2018**, 417-434	0.4	7
224	Numerical simulation of fluid-structure interaction problems by a coupled SPH-FEM approach. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 491-492	0.2	7
223	An adaptive model order reduction by proper snapshot selection for nonlinear dynamical problems. *Computational Mechanics*, **2016**, 57, 537-554	4	7

222	An extension of assumed stress finite elements to a general hyperelastic framework. *Advanced Modeling and Simulation in Engineering Sciences*, **2019**, 6,	2.7	7
221	Effective behaviour of elastic heterogeneous thin structures at finite deformations. *Computational Mechanics*, **2007**, 41, 595-606	4	7
220	A macro-element for incompressible finite deformations based on a volume averaged deformation gradient. *Computational Mechanics*, **2008**, 42, 407-416	4	7
219	On the sensitivity of homogenized material responses at infinitesimal and finite strains. *Communications in Numerical Methods in Engineering*, **2000**, 16, 657-670		7
218	Grundlagen nichtlinearer Berechnungsverfahren in der Strukturmechanik **1989**, 1-53		7
217	Free surface tension in incompressible smoothed particle hydrodynamcis (ISPH). *Computational Mechanics*, **2020**, 65, 487-502	4	7
216	An adaptive model order reduction with Quasi-Newton method for nonlinear dynamical problems. *International Journal for Numerical Methods in Engineering*, **2016**, 106, 740-759	2.4	7
215	Bayesian inversion for unified ductile phase-field fracture. *Computational Mechanics*, **2021**, 68, 943-980	4	7
214	Aerodynamical and Structural Analysis of Operationally Used Turbine Blades. *Procedia CIRP*, **2017**, 59, 77-82	1.8	6
213	Modeling of two-body abrasive wear of filled elastomers as a contact-induced fracture process. *Tribology International*, **2019**, 138, 16-31	4.9	6
212	Direct and inverse identification of constitutive parameters from the structure of soft tissues. Part 2: dispersed arrangement of collagen fibers. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 897-920	3.8	6
211	Mixed peridynamic formulations for compressible and incompressible finite deformations. *Computational Mechanics*, **2020**, 65, 1365-1376	4	6
210	Numerical method for solution of pointwise contact between surfaces. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 365, 112971	5.7	6
209	Experimental and numerical characterization of expanded glass granules. *Computational Particle Mechanics*, **2018**, 5, 297-312	3	6
208	Constant-free explicit error estimator with sharp upper error bound property for adaptive FE analysis in elasticity and fracture. *International Journal for Numerical Methods in Engineering*, **2015**, 101, 79-126	2.4	6
207	An algebraic multigrid solver for finite element computations in solid mechanics. *Engineering Computations*, **1997**, 14, 202-215	1.4	6
206	SHAPE OPTIMIZATION OF A LUBRICATED JOURNAL BEARING WITH REGARD TO THE DISTRIBUTION OF PRESSURE IN THE FLUID. *Engineering Optimization*, **1997**, 29, 259-275	2	6
205	On a Mass Conservation Criterion in Micro-to-Macro Transitions. *Journal of Applied Mechanics, Transactions ASME*, **2008**, 75,	2.7	6

204	Finite Element Analysis of Enlarged End Piles Using Frictional Contact. *Soils and Foundations*, **2008**, 48, 1-14	2.9	6
203	On the effects of microstress on macroscopic diffusion processes. *Acta Mechanica*, **1999**, 136, 91-107	2.1	6
202	A technique to describe the macroscopic pressure dependence of diffusive properties of solid materials containing heterogeneities. *Computational Materials Science*, **1999**, 15, 69-88	3.2	6
201	Intelligent Decision Support System for River Floodplain Management. *Communications in Computer and Information Science*, **2014**, 195-213	0.3	6
200	Porous-ductile fracture in thermo-elasto-plastic solids with contact applications. *Computational Mechanics*, **2020**, 65, 941-966	4	6
199	Master-master frictional contact and applications for beam-shell interaction. *Computational Mechanics*, **2020**, 66, 1213-1235	4	6
198	A matrix-free isogeometric Galerkin method for Karhunen□Loᵛe approximation of random fields using tensor product splines, tensor contraction and interpolation based quadrature. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 379, 113730	5.7	6
197	Water-induced failure mechanics for concrete. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900140	0.2	6
196	3D Dynamic Crack Propagation by the Extended Finite Element Method and a Gradient-Enhanced Damage Model. *Lecture Notes in Applied and Computational Mechanics*, **2018**, 277-299	0.3	6
195	A Virtual Element Method for Crack Propagation. *Proceedings in Applied Mathematics and Mechanics* , **2018**, 18, e201800104	0.2	6
194	Model-data-driven constitutive responses: Application to a multiscale computational framework. *International Journal of Engineering Science*, **2021**, 167, 103522	5.7	6
193	Development of Sponge Structure and Casting Conditions for Absorbable Magnesium Bone Implants. *Minerals, Metals and Materials Series*, **2017**, 307-317	0.3	5
192	A virtual element method for frictional contact including large deformations. *Engineering Computations*, **2019**, 36, 2133-2161	1.4	5
191	Investigation of degraded bone substitutes made of magnesium alloy using scanning electron microscope and nanoindentation. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 109, 103825	4.1	5
190	Modeling of Fracture in Polycrystalline Materials. *SEMA SIMAI Springer Series*, **2016**, 79-102	0.2	5
189	Computational Contact Mechanics with the Finite Element Method **2017**, 1-45		5
188	On the error indication of shells in unilateral frictionless contact. *Computational Mechanics*, **2002**, 28, 169-176	4	5
187	Numerical simulation of rapid crack propagation in viscoplastic materials. *Computers and Structures*, **1996**, 61, 1169-1175	4.5	5

186	Electro-magneto-mechanically response of polycrystalline materials: Computational homogenization via the Virtual Element Method. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 380, 113775	5.7	5
185	A series of Duffy-distance transformation for integrating 2D and 3D vertex singularities. *International Journal for Numerical Methods in Engineering*, **2019**, 118, 38-60	2.4	5
184	Red blood cell simulation using a coupled shell-fluid analysis purely based on the SPH method. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 347-359	3.8	5
183	Finite and Virtual Element Formulations for Large Strain Anisotropic Material with Inextensive Fibers. *Lecture Notes in Applied and Computational Mechanics*, **2018**, 205-231	0.3	5
182	Chemo-mechanical modelling of swelling and crosslinking reaction kinetics in alginate hydrogels: A novel theory and its numerical implementation. *Journal of the Mechanics and Physics of Solids*, **2021**, 153, 104476	5	5
181	Material models for the thermoplastic material behaviour of a dual-phase steel on a microscopic and a macroscopic length scale. *Journal of the Mechanics and Physics of Solids*, **2019**, 129, 205-228	5	4
180	Nearly-constrained transversely isotropic linear elasticity: energetically consistent anisotropic deformation modes for mixed finite element formulations. *International Journal of Solids and Structures*, **2020**, 202, 166-183	3.1	4
179	Comparison of two pore sizes of LAE442 scaffolds and their effect on degradation and osseointegration behavior in the rabbit model. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2020**, 108, 2776-2788	3.5	4
178	Delamination onset and growth in composite shells. *Computers and Structures*, **2018**, 195, 1-15	4.5	4
177	Multiscale finite element analysis of uncertain-but-bounded heterogeneous materials at finite deformation. *Finite Elements in Analysis and Design*, **2018**, 149, 15-31	2.2	4
176	A micromechanically motivated higher-order continuum formulation of linear thermal conduction. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2010**, 90, 768-782	1	4
175	Three-dimensional modelling of discrete particles by superellipsoids. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 101-102	0.2	4
174	Interaction between different internal length scales for strain localisation analysis of single phase materials. *Computational Mechanics*, **2003**, 30, 212-219	4	4
173	Finite element modeling of orthotropic material behaviour in pneumatic membranes. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2000**, 80, 409-410	1	4
172	A simple local a posteriori bending indicator for axisymmetric membrane and bending shell elements. *Engineering Computations*, **1998**, 15, 977-988	1.4	4
171	Numerical integration of viscoplastic material laws at large strains with application to impact problems. *Computers and Structures*, **1992**, 45, 165-171	4.5	4
170	Simulation-Aided Process Chain Design for the Manufacturing of Hybrid Shafts. *HTM - Journal of Heat Treatment and Materials*, **2019**, 74, 115-135	0.7	4
169	A consistent peridynamic formulation for arbitrary particle distributions. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 374, 113605	5.7	4

168	Finite element solution for static and dynamic interactions of cylindrical rigid objects and unsaturated granular soils. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 384, 113974	5.7	4
167	Multilevel global–local techniques for adaptive ductile phase-field fracture. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 387, 114175	5.7	4
166	An Adaptive Finite Element Technique for Nonlinear Contact Problems **1995**, 183-194		4
165	Modelling of Soil Structure Interaction by Applying a Hypoplastic Material Behaviour Within Mortar Contact Formulation. *Lecture Notes in Applied and Computational Mechanics*, **2015**, 59-72	0.3	3
164	Meshless analysis of shear deformable shells: boundary and interface constraints. *Computational Mechanics*, **2016**, 57, 679-700	4	3
163	Multiscale hierarchical mechanics in soft tissues. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 35-38	0.2	3
162	Effects of Debonding on Thermal Conduction and Humidity Diffusion at Mesoscale of Concrete. *Proceedings in Applied Mathematics and Mechanics*, **2014**, 14, 489-490	0.2	3
161	Material Model Identification for DC04 Based on the Numerical Modelling of the Polycrystalline Microstructure and Experimental Data. *Key Engineering Materials*, **2012**, 504-506, 993-998	0.4	3
160	Practical Integration of Semidiscretized Nonlinear Equations of Motion: Proper Convergence for Systems with Piecewise Linear Behavior. *Journal of Engineering Mechanics - ASCE*, **2013**, 139, 114-145	2.4	3
159	A Computational Model for Interfacial Damage Through Microstructural Cohesive Zone Relaxation **2000**, 101, 9-14		3
158	AN EFFICIENT ALGORITHM FOR THE COMPUTATION OF STABILITY POINTS OF DYNAMICAL SYSTEMS UNDER STEP LOAD. *Engineering Computations*, **1992**, 9, 669-679	1.4	3
157	Influence of Moisture Content and Wet Environment on the Fatigue Behaviour of High-Strength Concrete.. *Materials*, **2022**, 15,	3.5	3
156	Elastic-plastic analysis of metallic shells at finite strains. *Revista Escola De Minas*, **2007**, 60, 381-389		3
155	Homogenization and Multi-Scale Approaches for Contact Problems. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2007**, 129-161	0.6	3
154	Multi-scale Approach for Frictional Contact of Elastomers on Rough Rigid Surfaces. *Lecture Notes in Applied and Computational Mechanics*, **2010**, 53-94	0.3	3
153	Influence of coatings on degradation and osseointegration of open porous Mg scaffolds in vivo. *Materialia*, **2020**, 14, 100949	3.2	3
152	NURBS-based geometries: A mapping approach for virtual serendipity elements. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 378, 113732	5.7	3
151	DEM-FEM coupled numerical investigation of granular materials to increase crashworthiness of double-hull vessels. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 311-312	0.2	3

150	Experimental and numerical investigation of granular materials for an increase of the collision safety of double-hull vessels. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 409-410	0.2	3
149	The analyses of dynamic response and reliability for failure-dependent stochastic micro-resonator with thermoelastic coupling effects. *Applied Mathematical Modelling*, **2020**, 77, 1168-1187	4.5	3
148	The dynamic analysis of stochastic thin-walled structures under thermal–structural–acoustic coupling. *Computational Mechanics*, **2020**, 65, 609-634	4	3
147	A curing model for the numerical simulation within additive manufacturing of soft polymers using peridynamics. *Computational Particle Mechanics*, **2021**, 8, 369-388	3	3
146	Statics – Formulas and Problems **2017**,		2
145	Coupling Microscale Transport and Tissue Mechanics: Modeling Strategies for Arterial Multiphysics **2017**, 77-112		2
144	Virtual Element Method for Cross-Wedge Rolling during Tailored Forming Processes. *Procedia Manufacturing*, **2020**, 47, 713-718	1.5	2
143	Bulk material models in Cohesive Zone Elements for simulation of joining zones. *Finite Elements in Analysis and Design*, **2019**, 164, 42-54	2.2	2
142	Modelling thermoplastic material behaviour of dual-phase steels on a microscopic length scale. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 373-374	0.2	2
141	Texture development and formability prediction for pre-textured cold rolled body-centred cubic steel. *International Journal of Engineering Science*, **2013**, 68, 24-37	5.7	2
140	Finite element simulation of myocardial stabilising structures and development of new designs. *Biomedizinische Technik*, **2013**, 58 Suppl 1,	1.3	2
139	Homogenization of Granular Material Modeled by a 3D DEM. *Computational Methods in Applied Sciences (Springer)*, **2011**, 211-231	0.4	2
138	A Coupled 3D Discrete-Finite Element Method for the Simulation of Granular Materials and Their Interaction with Solid Structures. *Proceedings in Applied Mathematics and Mechanics*, **2008**, 8, 10353-10354	0.2	2
137	Direct computation of instability points with inequality constraints using the FEM. *Engineering Computations*, **2003**, 20, 611-628	1.4	2
136	Wear Simulation Based on Node-to-Segment Element. *Key Engineering Materials*, **2004**, 274-276, 577-582	0.4	2
135	Modeling and simulation of the decohesion of particulate aggregates in a binding matrix. *Engineering Computations*, **2001**, 18, 79-95	1.4	2
134	Comparison of different error estimators for contact problems. *Engineering Computations*, **2000**, 17, 255-273	1.4	2
133	Phenomenological modeling and numerical simulation of the environmental degradation of multiphase engineering materials. *Archive of Applied Mechanics*, **2000**, 70, 47-64	2.2	2

132	The consistent strain method in finite element plasticity. *Computers and Structures*, **1995**, 54, 27-33	4.5	2
131	Thermoelastic stability of trusses with temperature-dependent constitutive relations. *International Journal for Numerical Methods in Engineering*, **1992**, 35, 1891-1906	2.4	2
130	An updated Lagrangian formulation for Timoshenko beams including non-conservative loads for divergence-type systems. *Mechanics Research Communications*, **1983**, 10, 239-244	2.2	2
129	Virtual Element Formulation for Finite Strain Elastodynamics. *CMES - Computer Modeling in Engineering and Sciences*, **2021**, 129, 1151-1180	1.7	2
128	FROM THE NOTIONS OF NONLINEARITY TOLERANCES TOWARDS A DEFICIENCY IN COMMERCIAL TRANSIENT ANALYSIS SOFTWARES AND ITS SOLUTION **2015**,		2
127	On enhanced strain methods for small and finite deformations of solids **1996**, 18, 413		2
126	Computational testing of microheterogeneous materials **2001**, 579-582		2
125	3D orientation data A comparison of diffraction contrast tomography and serial sectioning electron backscatter diffraction for the nickel-base superalloy IN738LC. *Materials Letters*, **2020**, 262, 127177	3.3	2
124	Numerical investigations regarding a novel process chain for the production of a hybrid bearing bushing. *Production Engineering*, **2020**, 14, 569-581	1.9	2
123	Computational model of damage-induced growth in soft biological tissues considering the mechanobiology of healing. *Biomechanics and Modeling in Mechanobiology*, **2021**, 20, 1297-1315	3.8	2
122	3D mixed virtual element formulation for dynamic elasto-plastic analysis. *Computational Mechanics*, **2021**, 68, 1-18	4	2
121	Mechano-chemo-biological Computational Models for Arteries in Health, Disease and Healing: From Tissue Remodelling to Drug-eluting Devices. *Current Pharmaceutical Design*, **2021**, 27, 1904-1917	3.3	2
120	Developing a model for the microscopic material behaviour of a tailored formed joining zone of an aluminium-steel hybrid solid component. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800329	0.2	2
119	Comparison of discontinuous damage models of Mullins-type. *Archive of Applied Mechanics*, **2021**, 91, 4097-4119	2.2	2
118	Strategies to Apply Soil Models Directly as Friction Laws in Soil Structure Interactions. *Lecture Notes in Applied and Computational Mechanics*, **2017**, 216-236	0.3	1
117	A discontinuous Galerkin Finite Element Method for linear elasticity using a mixed integration scheme to circumvent shear-locking. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 769-770	0.2	1
116	A Discontinuous Shell Element for the Delamination Analysis of Composite Laminates **2016**,		1
115	A micro-thermo-mechanical model for a tailored formed joining zone deformed by die forging **2019** ,		1

114	An EBSD Evaluation of the Microstructure of Crept Nimonic 101 for the Validation of a Polycrystal Plasticity Model. *Journal of Materials Engineering and Performance*, **2017**, 26, 6087-6098	1.6	1
113	The Art of Modeling in Solid Mechanics. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2017**, 321-386	0.6	1
112	Modelling the thermoplastic material behaviour of a tailored formed joining zone on a microscopic length scale with focus on the steel component. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 391-392	0.2	1
111	Statistical characterization of granular material applied as crash absorber in ship building. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 487-488	0.2	1
110	About the Microstructural Effects of Polycrystalline Materials and their Macroscopic Representation at Finite Deformation. *Proceedings in Applied Mathematics and Mechanics*, **2012**, 12, 275-276	0.2	1
109	Special issue on computational methods for interface mechanical problems. *Computational Mechanics*, **2012**, 50, 269-271	4	1
108	Advanced Computational Engineering. *Oberwolfach Reports*, **2012**, 9, 457-553	0	1
107	Computational Homogenisation of Polycrystalline Elastoplastic Microstructures at Finite Deformation. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 401-402	0.2	1
106	Aspects of the Facet-Edge Data Structure for the Construction of Voronoi Cells. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 645-646	0.2	1
105	Application of a parallel algebraic multigrid method for the solution of elastoplastic shell problems. *Numerical Linear Algebra With Applications*, **1997**, 4, 223-238	1.6	1
104	Micro-Meso-Macro Modelling of Composite Materials. *Computational Methods in Applied Sciences (Springer)*, **2007**, 105-122	0.4	1
103	Simulating the Microstructure of cement-based Construction Materials. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 401-402	0.2	1
102	Aspects of computational homogenisation of microheterogeneous materials including decohesion at finite strains. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 427-428	0.2	1
101	Self-actuating fiber composites for auto-adaptive structures **2001**,		1
100	Combination of the critical displacement method with a damage model for structural instability analysis. *Engineering Computations*, **2001**, 18, 642-662	1.4	1
99	Microstructural Decomposition Error Estimates. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **1999**, 79, 155-158	1	1
98	Solution Strategies for Nonlinear Equations and Computation of Singular Points **1995**, 271-311		1
97	On perturbation behaviour in non-linear dynamics. *Communications in Numerical Methods in Engineering*, **1993**, 9, 165-175		1

96	Discrete Element Methods: Basics and Applications in Engineering. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2020**, 1-30	0.6	1
95	Adaptive Methods for Contact Problems **2005**, 321-363		1
94	Frictional contact of elastomer materials on rough rigid surfaces **2006**, 379-380		1
93	Finite Element Methods for Rolling Contact **2000**, 85-162		1
92	A Concept for the Extension of the Assumed Stress Finite Element Method to Hyperelasticity. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2020**, 107-126	0.6	1
91	Application of Enhanced Peridynamic Correspondence Formulation for Three-Dimensional Simulations at Large Strains. *Lecture Notes in Applied and Computational Mechanics*, **2020**, 81-104	0.3	1
90	Treatment of Brittle Fracture in Solids with the Virtual Element Method. *Lecture Notes in Applied and Computational Mechanics*, **2020**, 201-228	0.3	1
89	Direct Numerical Simulation of Particulate Flows Using a Fictitious Domain Method. *Computational Methods in Applied Sciences (Springer)*, **2014**, 105-127	0.4	1
88	A Concurrent Multiscale Approach to Non-cohesive Granular Materials **2011**, 257-264		1
87	Finite Elements for Thermomechanical Contact and Adaptive Finite Elemnt Analysis of Contact Problems. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **1999**, 179-246	0.6	1
86	Five Lectures on Nonlinear Finite Element Methods. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **1988**, 33-107	0.6	1
85	An Adaptive Finite Element Method for Large Deformation Frictional Contact Problems. *Solid Mechanics and Its Applications*, **1999**, 35-42	0.4	1
84	On the Treatment of Contact Contraints within Coupled Thermomechanical Analysis **1992**, 333-347		1
83	Homogenized thermal properties of 3D composites with full uncertainty in the microstructure. *Structural Engineering and Mechanics*, **2016**, 57, 369-387		1
82	Contact between Beams and Shells. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2010**, 155-174	0.6	1
81	A multiscale DEM□EM coupled approach for the investigation of granules as crash-absorber in ship building. *Computational Particle Mechanics*,1	3	1
80	Discretization Methods for Solids Undergoing Finite Deformations. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2016**, 17-51	0.6	1
79	A Numerical Review of Multi-Fluid SPH Algorithms for High Density Ratios. *Modeling and Simulation in Science, Engineering and Technology*, **2016**, 139-150	0.8	1

78	Computational modeling of hydrogel cross-linking based on reaction-diffusion theory. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900406	0.2	1
77	A Computational Model for Biological Tissues Considering the Influence of Injury on Growth and Remodelling. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900259	0.2	1
76	3D Virtual Elements for Elastodynamic Problems. *Proceedings in Applied Mathematics and Mechanics* , **2021**, 20, e202000175	0.2	1
75	A design concept of active cooling for tailored forming workpieces during induction heating. *Production Engineering*, **2021**, 15, 177-186	1.9	1
74	Internal Thickness Extrapolation. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800391	0.2	1
73	Mathematical Modeling and Numerical Simulation of Atherosclerosis Based on a Novel Surgeon's View. *Archives of Computational Methods in Engineering*, **2021**, 28, 1-20	7.8	1
72	Contact between rigid convex NURBS particles based on computer graphics concepts. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 386, 114097	5.7	1
71	A stabilization technique to avoid hourglassing in finite elasticity **2000**, 48, 79		1
70	Phase-Field Modeling of Fatigue Crack Propagation in Brittle Materials **2022**, 15-22		1
69	Effect of pore size on tissue ingrowth and osteoconductivity in biodegradable Mg alloy scaffolds.. *Journal of Applied Biomaterials and Functional Materials*, **2022**, 20, 22808000221078168	1.8	1
68	On two simple virtual Kirchhoff-Love plate elements for isotropic and anisotropic materials. *Computational Mechanics*, **2022**, 69, 615-637	4	1
67	Low-order locking-free mixed finite element formulation with approximation of the minors of the deformation gradient. *International Journal for Numerical Methods in Engineering*, **2019**, 120, 1011-1026	2.4	0
66	3D Fracture Modeling by Extended Finite Element Method and Gradient Enhanced Damage. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 263-264	0.2	0
65	A Petrov□Galerkin transformation that eliminates spurious oscillations for heterogeneous diffusion□reaction equations. *Computational Materials Science*, **2001**, 21, 255-260	3.2	0
64	A sharp-interface model for diffusional evolution of precipitates in visco-plastic materials. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 391, 114440	5.7	0
63	A Multiscale Projection Method for the Analysis of Fiber Microbuckling in Fiber Reinforced Composites. *Lecture Notes in Applied and Computational Mechanics*, **2020**, 167-184	0.3	0
62	Loading equine oocytes with cryoprotective agents captured with a finite element method model. *Scientific Reports*, **2021**, 11, 19812	4.9	0
61	Biomechanical Effects of a Cross Connector in Sacral Fractures - A Finite Element Analysis. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 669321	5.8	0

60	Discrete element model for general polyhedra. *Computational Particle Mechanics*,1	3	0
59	A Taylor–Hood type virtual element formulations for large incompressible strains. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 385, 114021	5.7	0
58	Flexible polyhedra modeled by the virtual element method in a discrete element context. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 387, 114163	5.7	0
57	On a virtual element formulation for trusses and beams. *Archive of Applied Mechanics*, **2022**, 92, 1655	2.2	0
56	Applying Membrane Mode Enhanced Cohesive Zone Elements on Tailored Forming Components. *Metals*, **2020**, 10, 1333	2.3	
55	A semi-implicit multi-fluid SPH algorithm suitable for GPU. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 593-594	0.2	
54	Notes on a novel finite element for anisotropy at large strains. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 247-248	0.2	
53	Modelling thermoplastic material behaviour of dual-phase steels on a microscopic length scale - numerical treatment. *Proceedings in Applied Mathematics and Mechanics*, **2016**, 16, 503-504	0.2	
52	Structural Elements **2016**, 217-254		
51	Continuum Elements **2016**, 181-215		
50	Thermo-mechanical modeling of turbine blades taking into account structural defects. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 519-520	0.2	
49	Notes on a novel finite element for anisotropy at large strains. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 765-766	0.2	
48	Automated modeling of nickel-based superalloys. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 435-436	0.2	
47	A primal discontinuous Petrov-Galerkin Finite Element Method for linear elasticity. *Proceedings in Applied Mathematics and Mechanics*, **2017**, 17, 83-86	0.2	
46	Development of Magnesium Alloy Scaffolds to Support Biological Myocardial Grafts: A Finite Element Investigation. *Lecture Notes in Applied and Computational Mechanics*, **2015**, 81-100	0.3	
45	3D Ductile crack propagation with the XFEM. *Proceedings in Applied Mathematics and Mechanics*, **2015**, 15, 747-748	0.2	
44	Adaptive Multi-scale Modeling Error Estimation for Composites. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 525-526	0.2	
43	Computational Homogenization of Damage in the Hardened Cement Paste due to Alkali Silica Reaction. *Proceedings in Applied Mathematics and Mechanics*, **2011**, 11, 561-562	0.2	

42	A Contact Homogenization Framework for Granular Interfaces. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 417-418	0.2
41	Modelling Metals At Finite Deformation. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 305-306	0.2
40	Chemo-Thermo-Mechanics Coupling Applied in Hardened Cement Paste. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 391-392	0.2
39	A Finite Element Algorithm for Electromechanical Contact Problems. *Proceedings in Applied Mathematics and Mechanics*, **2008**, 8, 10493-10494	0.2
38	On the Computation of the Macroscopic Tangent for Multiscale Volumetric Homogenization Problems. *Proceedings in Applied Mathematics and Mechanics*, **2008**, 8, 10577-10578	0.2
37	Thermo-electro-mechanical coupling in beam-to-beam contact **2006**, 306-306	
36	One fragmentation procedure for brittle material cracking. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 193-194	0.2
35	Comparison of Different Error Indicators for Contact Problems Involving Large Elastic Strains. *Applicable Analysis*, **2003**, 82, 575-601	0.8
34	Different weak FE-formulations for 2-D frictionless Large Deformation Contact based on the Mortar Method. *Proceedings in Applied Mathematics and Mechanics*, **2004**, 4, 312-313	0.2
33	A Micro- Thermomechanical coupled Finite-Element Model for the Simulation of Particulate Cellular Solids at Finite Strains. *Proceedings in Applied Mathematics and Mechanics*, **2003**, 3, 274-275	0.2
32	A finite element formulation based on the theory of a Cosserat point. *Proceedings in Applied Mathematics and Mechanics*, **2005**, 5, 379-380	0.2
31	Error Control in Frictional Contact Problems **2001**, 697-706	
30	Robust Contact and Friction Model for the Fatigue Estimate of a Wire Rope in the Mooring Line of a Floating Offshore Wind Turbine. *Lecture Notes in Applied and Computational Mechanics*, **2020**, 249-270	0.3
29	A finite element formulation based on the theory of a Cosserat point Extension to Ogden material **2006**, 39-39	
28	The quadrilateral parametric contact element based on the moving friction cone formulation **2006**, 95-102	
27	3D beam-to-beam contact within coupled electromechanical fields: a finite element model **2006**, 103-110	
26	A 3D study of the contact interface behavior using elastic-plastic constitutive equations **2006**, 313-324	
25	A formulation to define the contact surface in the 2D mortar finite element method **2006**, 393-394	

24	Material Characterization Based on Micro-Structural Computations and Homogenization. *IUTAM Symposium on Cellular, Molecular and Tissue Mechanics*, **2008**, 15-26	0.3
23	Brick Elements for Finite Deformations Based on Macro-concepts and on Inhomogeneous Mode Enhancement **2009**, 33-48	
22	Chancen und Visionen Der Modernen Mechanik **2009**, 259-283	
21	Multilevel Material Modeling to Study Plastic Deformation for Sheet-Bulk Metal Forming Under Different Loading Histories. *Lecture Notes in Production Engineering*, **2021**, 334-353	0
20	H-Adaptive Finite Element Methods for Contact Problems **2000**, 117-141	
19	Contact between 3D Beams with Rectangular Cross-Sections. *Solid Mechanics and Its Applications*, **2002**, 355-362	0.4
18	Finite-Element-Methoden und ihre Absicherung in der Mathematik. *Informatik-Fachberichte*, **1990**, 174-201	
17	Automation of Primal Analysis **2016**, 69-96	
16	Chances and Visions of Advanced Mechanics **2010**, 209-230	
15	Finite Deformation Thermomechanical Contact Homogenization Framework. *Lecture Notes in Applied and Computational Mechanics*, **2011**, 101-119	0.3
14	On the Four-node Quadrilateral Element **2011**, 47-50	
13	Multibody Contact Algorithms for Fracturing Solids. *Lecture Notes in Applied and Computational Mechanics*, **2011**, 75-116	0.3
12	Numerical Simulation of Particle-Fluid Systems **2011**, 249-256	
11	Non-Local Ductile Damage Formulations for Sheet Bulk Metal Forming. *Journal of Physics: Conference Series*, **2016**, 734, 032059	0.3
10	3D Dynamic Crack under Cyclic Loading using XFEM: Numerical Treatment. *Proceedings in Applied Mathematics and Mechanics*, **2019**, 19, e201900147	0.2
9	Vision: Digitale Zwillinge f□ die Additive Fertigung **2021**, 77-100	
8	Material modeling of ferritic steel on microscopic length scale under cyclic loading. *Proceedings in Applied Mathematics and Mechanics*, **2021**, 20, e202000326	0.2
7	Simulation of bone ingrowth into bone substitutes on implant level length scale. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800297	0.2

List of Publications

6	Examining errors and correction techniques for SPH. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800081	0.2
5	Modelling and experimental testing of expanded granules as crash-absorber for double hull ships. *Proceedings in Applied Mathematics and Mechanics*, **2018**, 18, e201800416	0.2
4	Advanced Discretization Methods for Contact Mechanics. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2018**, 87-123	0.6
3	Computational Homogenization Using Convolutional Neural Networks **2022**, 569-579	
2	Adaptive Virtual Element Method for Large-Strain Phase-Field Fracture **2022**, 195-206	
1	Novel Finite Elements - Mixed, Hybrid and Virtual Element Formulations at Finite Strains for 3D Applications. *Lecture Notes in Applied and Computational Mechanics*, **2022**, 37-67	0.3