

Tayfun E Tezduyar

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329
papers

20,461
citations

82
h-index

129
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356
ext. papers

22,130
ext. citations

3.6
avg, IF

7.26
L-index

#	Paper	IF	Citations
329	A new strategy for finite element computations involving moving boundaries and interfaces—the deforming-spatial-domain/space-time procedure: I. The concept and the preliminary numerical tests. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992 , 94, 339-351	5.7	637
328	Incompressible flow computations with stabilized bilinear and linear equal-order-interpolation velocity-pressure elements. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992 , 95, 221-242	5.7	613
327	A new strategy for finite element computations involving moving boundaries and interfaces—the deforming-spatial-domain/space-time procedure: II. Computation of free-surface flows, two-liquid flows, and flows with drifting cylinders. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992 , 94, 353-374	5.7	501
326	Finite Elements Based Upon Mindlin Plate Theory With Particular Reference to the Four-Node Bilinear Isoparametric Element. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1981 , 48, 587-596	2.7	491
325	Stabilized Finite Element Formulations for Incompressible Flow Computations. <i>Advances in Applied Mechanics</i> , 1991 , 28, 1-44	10	424
324	Mesh update strategies in parallel finite element computations of flow problems with moving boundaries and interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994 , 119, 73-94	5.7	382
323	Computation of moving boundaries and interfaces and stabilization parameters. <i>International Journal for Numerical Methods in Fluids</i> , 2003 , 43, 555-575	1.9	351
322	Modelling of fluid-structure interactions with the space-time finite elements: Solution techniques. <i>International Journal for Numerical Methods in Fluids</i> , 2007 , 54, 855-900	1.9	312
321	Finite element methods for first-order hyperbolic systems with particular emphasis on the compressible euler equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1984 , 45, 217-284	5.7	307
320	Finite element stabilization parameters computed from element matrices and vectors. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 190, 411-430	5.7	305
319	Finite element methods for flow problems with moving boundaries and interfaces. <i>Archives of Computational Methods in Engineering</i> , 2001 , 8, 83-130	7.8	285
318	Mesh Moving Techniques for Fluid-Structure Interactions With Large Displacements. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2003 , 70, 58-63	2.7	279
317	Space-time finite element techniques for computation of fluid-structure interactions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 2002-2027	5.7	248
316	3D simulation of wind turbine rotors at full scale. Part I: Geometry modeling and aerodynamics. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 207-235	1.9	245
315	2013 ,		229
314	. <i>Computer</i> , 1993 , 26, 27-36	1.6	224
313	Multiscale space-time fluid-structure interaction techniques. <i>Computational Mechanics</i> , 2011 , 48, 247-267	4	208

312	Discontinuity-capturing finite element formulations for nonlinear convection-diffusion-reaction equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986 , 59, 307-325	5.7	192
311	Simulation of multiple spheres falling in a liquid-filled tube. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1996 , 134, 351-373	5.7	189
310	Improving stability of stabilized and multiscale formulations in flow simulations at small time steps. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010 , 199, 828-840	5.7	185
309	Advanced mesh generation and update methods for 3D flow simulations. <i>Computational Mechanics</i> , 1999 , 23, 130-143	4	179
308	A parallel 3D computational method for fluid-structure interactions in parachute systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 190, 321-332	5.7	175
307	3D Simulation of fluid-particle interactions with the number of particles reaching 100. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1997 , 145, 301-321	5.7	160
306	Automatic mesh update with the solid-extension mesh moving technique. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 2019-2032	5.7	158
305	Parachute fluid-structure interactions: 3-D computation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 190, 373-386	5.7	155
304	Space-time and ALE-VMS Techniques for Patient-Specific Cardiovascular Fluid-Structure Interaction Modeling. <i>Archives of Computational Methods in Engineering</i> , 2012 , 19, 171-225	7.8	152
303	Solution techniques for the fully discretized equations in computation of fluid-structure interactions with the space-time formulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 5743-5753	5.7	148
302	Finite elements in fluids: Stabilized formulations and moving boundaries and interfaces. <i>Computers and Fluids</i> , 2007 , 36, 191-206	2.8	142
301	Fluid-structure Interaction Modeling of Aneurysmal Conditions with High and Normal Blood Pressures. <i>Computational Mechanics</i> , 2006 , 38, 482-490	4	141
300	SUPG finite element computation of compressible flows with the entropy and conservation variables formulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993 , 104, 397-422	5.7	141
299	Stabilization and shock-capturing parameters in SUPG formulation of compressible flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 1621-1632	5.7	140
298	Computer modeling of cardiovascular fluid-structure interactions with the deforming-spatial-domain/stabilized space-time formulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 1885-1895	5.7	137
297	SPACE-TIME FLUID-STRUCTURE INTERACTION METHODS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2012 , 22, 1230001	3.5	136
296	Modelling of fluid-structure interactions with the space-time finite elements: Arterial fluid mechanics. <i>International Journal for Numerical Methods in Fluids</i> , 2007 , 54, 901-922	1.9	134
295	Flow simulation and high performance computing. <i>Computational Mechanics</i> , 1996 , 18, 397-412	4	133

294	Computational Methods for Parachute Fluid-Structure Interactions. <i>Archives of Computational Methods in Engineering</i> , 2012 , 19, 125-169	7.8	132
293	Influence of wall elasticity in patient-specific hemodynamic simulations. <i>Computers and Fluids</i> , 2007 , 36, 160-168	2.8	132
292	ALE-VMS AND ST-VMS METHODS FOR COMPUTER MODELING OF WIND-TURBINE ROTOR AERODYNAMICS AND FLUID-STRUCTURE INTERACTION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2012 , 22, 1230002	3.5	131
291	Arterial fluid mechanics modeling with the stabilized space-time fluid-structure interaction technique. <i>International Journal for Numerical Methods in Fluids</i> , 2008 , 57, 601-629	1.9	129
290	Massively parallel finite element simulation of compressible and incompressible flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994 , 119, 157-177	5.7	129
289	Fluid-structure interaction modeling of a patient-specific cerebral aneurysm: influence of structural modeling. <i>Computational Mechanics</i> , 2008 , 43, 151-159	4	127
288	Parallel finite element simulation of 3D incompressible flows: Fluid-structure interactions. <i>International Journal for Numerical Methods in Fluids</i> , 1995 , 21, 933-953	1.9	127
287	Space-time finite element computation of complex fluid-structure interactions. <i>International Journal for Numerical Methods in Fluids</i> , 2010 , 64, 1201-1218	1.9	126
286	A finite element study of incompressible flows past oscillating cylinders and aerofoils. <i>International Journal for Numerical Methods in Fluids</i> , 1992 , 15, 1073-1118	1.9	120
285	Stabilized space-time computation of wind-turbine rotor aerodynamics. <i>Computational Mechanics</i> , 2011 , 48, 333-344	4	117
284	Fluid-structure interaction modeling of blood flow and cerebral aneurysm: Significance of artery and aneurysm shapes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009 , 198, 3613-3621	5.7	115
283	Space-time VMS computation of wind-turbine rotor and tower aerodynamics. <i>Computational Mechanics</i> , 2014 , 53, 1-15	4	111
282	Numerical-performance studies for the stabilized space-time computation of wind-turbine rotor aerodynamics. <i>Computational Mechanics</i> , 2011 , 48, 647-657	4	111
281	YZ-discontinuity capturing for advection-dominated processes with application to arterial drug delivery. <i>International Journal for Numerical Methods in Fluids</i> , 2007 , 54, 593-608	1.9	111
280	Interface projection techniques for fluid-structure interaction modeling with moving-mesh methods. <i>Computational Mechanics</i> , 2008 , 43, 39-49	4	111
279	Space-time techniques for computational aerodynamics modeling of flapping wings of an actual locust. <i>Computational Mechanics</i> , 2012 , 50, 743-760	4	110
278	Finite element solution strategies for large-scale flow simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994 , 112, 3-24	5.7	110
277	Space-Time Computational Techniques for the Aerodynamics of Flapping Wings. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	109

276	Space-time interface-tracking with topology change (ST-TC). <i>Computational Mechanics</i> , 2014 , 54, 955-9714		104
275	CHALLENGES AND DIRECTIONS IN COMPUTATIONAL FLUID-STRUCTURE INTERACTION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013 , 23, 215-221	3.5	103
274	METHODS FOR FSI MODELING OF SPACECRAFT PARACHUTE DYNAMICS AND COVER SEPARATION. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013 , 23, 307-338	3.5	103
273	Incompressible flow past a circular cylinder: dependence of the computed flow field on the location of the lateral boundaries. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1995 , 123, 309-316	5.7	103
272	Stabilized Methods for Compressible Flows. <i>Journal of Scientific Computing</i> , 2010 , 43, 343-368	2.3	102
271	Space-time finite element computation of arterial fluid-structure interactions with patient-specific data. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010 , 26, 101-116	2.6	101
270	Space-time computational analysis of bio-inspired flapping-wing aerodynamics of a micro aerial vehicle. <i>Computational Mechanics</i> , 2012 , 50, 761-778	4	100
269	The Shear-Slip Mesh Update Method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1999 , 174, 261-274	5.7	99
268	Space-time fluid mechanics computation of heart valve models. <i>Computational Mechanics</i> , 2014 , 54, 973-986	4	98
267	ST and ALE-VMS methods for patient-specific cardiovascular fluid mechanics modeling. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014 , 24, 2437-2486	3.5	98
266	Space-time finite element computation of compressible flows involving moving boundaries and interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993 , 107, 209-223	5.7	98
265	Massively parallel finite element computation of incompressible flows involving fluid-body interactions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994 , 112, 253-282	5.7	97
264	Sequentially-coupled space-time FSI analysis of bio-inspired flapping-wing aerodynamics of an MAV. <i>Computational Mechanics</i> , 2014 , 54, 213-233	4	95
263	Engineering Analysis and Design with ALE-VMS and Space-time Methods. <i>Archives of Computational Methods in Engineering</i> , 2014 , 21, 481-508	7.8	95
262	Multiscale space-time methods for thermo-fluid analysis of a ground vehicle and its tires. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 2227-2255	3.5	93
261	Interface-tracking and interface-capturing techniques for finite element computation of moving boundaries and interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 2983-3000	5.7	93
260	Fluid-structure interactions of a parachute crossing the far wake of an aircraft. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 191, 717-726	5.7	92
259	Stabilized finite element methods for the velocity-pressure-stress formulation of incompressible flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993 , 104, 31-48	5.7	92

258	Fluid-structure interaction modeling of clusters of spacecraft parachutes with modified geometric porosity. <i>Computational Mechanics</i> , 2013 , 52, 1351-1364	4	90
257	Patient-specific computational analysis of the influence of a stent on the unsteady flow in cerebral aneurysms. <i>Computational Mechanics</i> , 2013 , 51, 1061-1073	4	90
256	Wall shear stress calculations in space-time finite element computation of arterial fluid-structure interactions. <i>Computational Mechanics</i> , 2010 , 46, 31-41	4	90
255	Aerodynamic and FSI Analysis of Wind Turbines with the ALE-VMS and ST-VMS Methods. <i>Archives of Computational Methods in Engineering</i> , 2014 , 21, 359-398	7.8	89
254	Space-time computational analysis of MAV flapping-wing aerodynamics with wing clapping. <i>Computational Mechanics</i> , 2015 , 55, 1131-1141	4	88
253	Petrov-Galerkin formulations with weighting functions dependent upon spatial and temporal discretization: Applications to transient convection-diffusion problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1986 , 59, 49-71	5.7	87
252	Space-time VMS method for flow computations with slip interfaces (ST-SI). <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 2377-2406	3.5	86
251	Space-time fluid-structure interaction modeling of patient-specific cerebral aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2011 , 27, 1665-1710	2.6	85
250	Enhanced-Discretization Interface-Capturing Technique (EDICT) for computation of unsteady flows with interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1998 , 155, 235-248	5.7	84
249	Fluid-structure interaction modeling of ringsail parachutes. <i>Computational Mechanics</i> , 2008 , 43, 133-142	4	84
248	Fluid-structure interactions of a cross parachute: numerical simulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 191, 673-687	5.7	83
247	Patient-specific computer modeling of blood flow in cerebral arteries with aneurysm and stent. <i>Computational Mechanics</i> , 2012 , 50, 675-686	4	82
246	Finite element computation of turbulent flows with the discontinuity-capturing directional dissipation (DCDD). <i>Computers and Fluids</i> , 2007 , 36, 121-126	2.8	82
245	Multiscale sequentially-coupled arterial FSI technique. <i>Computational Mechanics</i> , 2010 , 46, 17-29	4	81
244	Computation of Inviscid Supersonic Flows Around Cylinders and Spheres with the SUPG Formulation and YZ Shock-Capturing. <i>Computational Mechanics</i> , 2006 , 38, 469-481	4	81
243	Turbocharger flow computations with the Space-time Isogeometric Analysis (ST-IGA). <i>Computers and Fluids</i> , 2017 , 142, 15-20	2.8	80
242	Computer modeling techniques for flapping-wing aerodynamics of a locust. <i>Computers and Fluids</i> , 2013 , 85, 125-134	2.8	80
241	Sequentially-Coupled Arterial Fluid-Structure Interaction (SCAFSI) technique. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009 , 198, 3524-3533	5.7	79

240	SpaceTime FSI modeling and dynamical analysis of spacecraft parachutes and parachute clusters. <i>Computational Mechanics</i> , 2011 , 48, 345-364	4	76
239	FluidStructure interaction modeling of parachute clusters. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 286-307	1.9	75
238	FluidStructure interaction modeling of ringsail parachutes with disreefing and modified geometric porosity. <i>Computational Mechanics</i> , 2012 , 50, 835-854	4	74
237	SPACE TIME VMS METHODS FOR MODELING OF INCOMPRESSIBLE FLOWS AT HIGH REYNOLDS NUMBERS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013 , 23, 223-248	3.5	73
236	Influence of wall thickness on fluidStructure interaction computations of cerebral aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010 , 26, 336-347	2.6	73
235	FSI modeling of the reefed stages and disreefing of the Orion spacecraft parachutes. <i>Computational Mechanics</i> , 2014 , 54, 1203-1220	4	71
234	Numerical investigation of the effect of hypertensive blood pressure on cerebral aneurysmDependence of the effect on the aneurysm shape. <i>International Journal for Numerical Methods in Fluids</i> , 2007 , 54, 995-1009	1.9	71
233	Patient-specific arterial fluidStructure interaction modeling of cerebral aneurysms. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 308-323	1.9	70
232	Ram-air parachute structural and fluid mechanics computations with the SpaceTime Isogeometric Analysis (ST-IGA). <i>Computers and Fluids</i> , 2016 , 141, 191-200	2.8	69
231	Heart valve flow computation with the integrated SpaceTime VMS, Slip Interface, Topology Change and Isogeometric Discretization methods. <i>Computers and Fluids</i> , 2017 , 158, 176-188	2.8	69
230	SpaceTime computation techniques with continuous representation in time (ST-C). <i>Computational Mechanics</i> , 2014 , 53, 91-99	4	69
229	SUPG finite element computation of inviscid supersonic flows with YZShock-Capturing. <i>Computers and Fluids</i> , 2007 , 36, 147-159	2.8	68
228	Improved Discontinuity-capturing Finite Element Techniques for Reaction Effects in Turbulence Computation. <i>Computational Mechanics</i> , 2006 , 38, 356-364	4	68
227	Computational thermo-fluid analysis of a disk brake. <i>Computational Mechanics</i> , 2016 , 57, 965-977	4	66
226	Parallel fluid dynamics computations in aerospace applications. <i>International Journal for Numerical Methods in Fluids</i> , 1995 , 21, 783-805	1.9	66
225	FSI modeling of the Orion spacecraft drogue parachutes. <i>Computational Mechanics</i> , 2015 , 55, 1167-1179	4	64
224	New directions and challenging computations in fluid dynamics modeling with stabilized and multiscale methods. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015 , 25, 2217-2226	3.5	63
223	Computation of incompressible flows with implicit finite element implementations on the Connection Machine. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1993 , 108, 99-118	5.7	62

222	SpaceTime method for flow computations with slip interfaces and topology changes (ST-SI-TC). <i>Computers and Fluids</i> , 2016 , 141, 124-134	2.8	61
221	Special methods for aerodynamic-moment calculations from parachute FSI modeling. <i>Computational Mechanics</i> , 2015 , 55, 1059-1069	4	60
220	Multiscale methods for gore curvature calculations from FSI modeling of spacecraft parachutes. <i>Computational Mechanics</i> , 2014 , 54, 1461-1476	4	60
219	Characteristic-Galerkin and Galerkin/least-squares space-time formulations for the advection-diffusion equation with time-dependent domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1992 , 100, 117-141	5.7	59
218	A DRD finite element formulation for computing turbulent reacting flows in gas turbine combustors. <i>Computational Mechanics</i> , 2010 , 46, 159-167	4	58
217	Fluid-Structure Interactions of a Round Parachute: Modeling and Simulation Techniques. <i>Journal of Aircraft</i> , 2001 , 38, 800-808	1.6	58
216	Porosity models and computational methods for compressible-flow aerodynamics of parachutes with geometric porosity. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017 , 27, 771-806	3.5	57
215	SpaceTime VMS computational flow analysis with isogeometric discretization and a general-purpose NURBS mesh generation method. <i>Computers and Fluids</i> , 2017 , 158, 189-200	2.8	57
214	FluidStructure interaction modeling and performance analysis of the Orion spacecraft parachutes. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 271-285	1.9	57
213	Stabilized finite element computation of NOx emission in aero-engine combustors. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 254-270	1.9	57
212	Role of 0D peripheral vasculature model in fluidStructure interaction modeling of aneurysms. <i>Computational Mechanics</i> , 2010 , 46, 43-52	4	56
211	Shear-slip mesh update in 3D computation of complex flow problems with rotating mechanical components. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 190, 3189-3200	5.7	56
210	Computation of free-surface flows and fluidObject interactions with the CIP method based on adaptive meshless soroban grids. <i>Computational Mechanics</i> , 2007 , 40, 167-183	4	55
209	Computation of Inviscid Supersonic Flows Around Cylinders and Spheres With the V-SGS Stabilization and YZShock-Capturing. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2009 , 76,	2.7	54
208	Modeling of fluidStructure interactions with the spaceTime finite elements: contact problems. <i>Computational Mechanics</i> , 2008 , 43, 51-60	4	54
207	Calculation of the advective limit of the SUPG stabilization parameter for linear and higher-order elements. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 1909-1922	5.7	54
206	Stabilized-finite-element/interface-capturing technique for parallel computation of unsteady flows with interfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 190, 243-261	5.7	54
205	Computational analysis of flow-driven string dynamics in turbomachinery. <i>Computers and Fluids</i> , 2017 , 142, 109-117	2.8	53

204	SUPG and discontinuity-capturing methods for coupled fluid mechanics and electrochemical transport problems. <i>Computational Mechanics</i> , 2013 , 51, 171-185	4	52
203	Finite Element Methods for Fluid Dynamics with Moving Boundaries and Interfaces 2004 ,		52
202	Particle tracking and particle shock interaction in compressible-flow computations with the V-SGS stabilization and (YZbeta) shock-capturing. <i>Computational Mechanics</i> , 2015 , 55, 1201-1209	4	51
201	Computational analysis of wind-turbine blade rain erosion. <i>Computers and Fluids</i> , 2016 , 141, 175-183	2.8	51
200	A nested iterative scheme for computation of incompressible flows in long domains. <i>Computational Mechanics</i> , 2008 , 43, 73-80	4	51
199	Stabilization and discontinuity-capturing parameters for space-time flow computations with finite element and isogeometric discretizations. <i>Computational Mechanics</i> , 2018 , 62, 1169-1186	4	50
198	Collapse of a Liquid Column: Numerical Simulation and Experimental Validation. <i>Computational Mechanics</i> , 2007 , 39, 453-476	4	50
197	Influencing factors in image-based fluid-structure interaction computation of cerebral aneurysms. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 324-340	1.9	49
196	A Multiscale Finite Element Formulation With Discontinuity Capturing for Turbulence Models With Dominant Reactionlike Terms. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2009 , 76,	2.7	49
195	Computer Modeling of Wave-Energy Air Turbines With the SUPG/PSPG Formulation and Discontinuity-Capturing Technique. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	48
194	Computation of inviscid compressible flows with the V-SGS stabilization and YZ shock-capturing. <i>International Journal for Numerical Methods in Fluids</i> , 2007 , 54, 695-706	1.9	47
193	Stabilization Parameters and Smagorinsky Turbulence Model. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2003 , 70, 2-9	2.7	47
192	A moving Lagrangian interface technique for flow computations over fixed meshes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 191, 525-543	5.7	46
191	Petrov-Galerkin methods on multiply connected domains for the vorticity-stream function formulation of the incompressible Navier-Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , 1988 , 8, 1269-1290	1.9	46
190	Solution of linear systems in arterial fluid mechanics computations with boundary layer mesh refinement. <i>Computational Mechanics</i> , 2010 , 46, 83-89	4	45
189	Influence of Wall Elasticity on Image-Based Blood Flow Simulations. <i>Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A</i> , 2004 , 70, 1224-1231		45
188	Compressible-flow geometric-porosity modeling and spacecraft parachute computation with isogeometric discretization. <i>Computational Mechanics</i> , 2019 , 63, 301-321	4	44
187	Computation of flow problems with the Mixed Interface-Tracking/Interface-Capturing Technique (MITICT). <i>Computers and Fluids</i> , 2007 , 36, 2-11	2.8	44

186	Finite elements in fluids: Special methods and enhanced solution techniques. <i>Computers and Fluids</i> , 2007 , 36, 207-223	2.8	44
185	Stabilized formulations for incompressible flows with thermal coupling. <i>International Journal for Numerical Methods in Fluids</i> , 2008 , 57, 1189-1209	1.9	44
184	Turbocharger turbine and exhaust manifold flow computation with the Space-Time Variational Multiscale Method and Isogeometric Analysis. <i>Computers and Fluids</i> , 2019 , 179, 764-776	2.8	43
183	A variational multiscale method for particle-cloud tracking in turbomachinery flows. <i>Computational Mechanics</i> , 2014 , 54, 1191-1202	4	43
182	Computational analysis of noise reduction devices in axial fans with stabilized finite element formulations. <i>Computational Mechanics</i> , 2012 , 50, 695-705	4	43
181	Methods for parallel computation of complex flow problems. <i>Parallel Computing</i> , 1999 , 25, 2039-2066	1	43
180	Tire aerodynamics with actual tire geometry, road contact and tire deformation. <i>Computational Mechanics</i> , 2019 , 63, 1165-1185	4	43
179	Nested and parallel sparse algorithms for arterial fluid mechanics computations with boundary layer mesh refinement. <i>International Journal for Numerical Methods in Fluids</i> , 2011 , 65, 135-149	1.9	42
178	Preconditioning Techniques for Nonsymmetric Linear Systems in the Computation of Incompressible Flows. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2009 , 76,	2.7	42
177	A General-Purpose NURBS Mesh Generation Method for Complex Geometries. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2018 , 399-434	0.8	42
176	Estimation of element-based zero-stress state for arterial FSI computations. <i>Computational Mechanics</i> , 2014 , 54, 895-910	4	40
175	Mesh refinement influence and cardiac-cycle flow periodicity in aorta flow analysis with isogeometric discretization. <i>Computers and Fluids</i> , 2019 , 179, 790-798	2.8	39
174	Coronary arterial dynamics computation with medical-image-based time-dependent anatomical models and element-based zero-stress state estimates. <i>Computational Mechanics</i> , 2014 , 54, 1047-1053	4	39
173	Methods for 3D computation of fluid-object interactions in spatially periodic flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001 , 190, 3201-3221	5.7	39
172	Vorticity-streamfunction formulation of unsteady incompressible flow past a cylinder: Sensitivity of the computed flow field to the location of the outflow boundary. <i>International Journal for Numerical Methods in Fluids</i> , 1991 , 12, 323-342	1.9	39
171	A Comparative Study Based on Patient-Specific Fluid-Structure Interaction Modeling of Cerebral Aneurysms. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	38
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