

Stefano Micheletti

List of Publications by Year in descending order

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50
papers

842
citations

471371

17
h-index

501076

28
g-index

50
all docs

50
docs citations

50
times ranked

565
citing authors

#	ARTICLE	IF	CITATIONS
1	Anisotropic mesh adaptation in computational fluid dynamics: Application to the advection–diffusion–reaction and the Stokes problems. <i>Applied Numerical Mathematics</i> , 2004, 51, 511-533.	1.2	94
2	Anisotropic Mesh Adaptation for Crack Detection In Brittle Materials. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, B633-B659.	1.3	68
3	Stabilized Finite Elements on Anisotropic Meshes: A Priori Error Estimates for the Advection-Diffusion and the Stokes Problems. <i>SIAM Journal on Numerical Analysis</i> , 2003, 41, 1131-1162.	1.1	64
4	An upscaling procedure for fractured reservoirs with embedded grids. <i>Water Resources Research</i> , 2016, 52, 6506-6525.	1.7	64
5	Reliability and efficiency of an anisotropic Zienkiewicz–Zhu error estimator. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 799-835.	3.4	47
6	The discontinuous Petrov–Galerkin method for elliptic problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002, 191, 3391-3409.	3.4	42
7	An anisotropic Zienkiewicz–Zhu type error estimator for 3D applications. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 85, 671-692.	1.5	33
8	Discretization of Semiconductor Device Problems (I). <i>Handbook of Numerical Analysis</i> , 2005, 13, 317-441.	0.9	28
9	On Some Mixed Finite Element Methods with Numerical Integration. <i>SIAM Journal of Scientific Computing</i> , 2001, 23, 245-270.	1.3	26
10	On some new recovery-based a posteriori error estimators. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 4794-4815.	3.4	24
11	Reconstruction of a piecewise constant conductivity on a polygonal partition via shape optimization in EIT. <i>Journal of Computational Physics</i> , 2018, 353, 264-280.	1.9	22
12	Anisotropic mesh adaptation for crack propagation induced by a thermal shock in 2D. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 331, 138-158.	3.4	22
13	Topology optimization driven by anisotropic mesh adaptation: Towards a free-form design. <i>Computers and Structures</i> , 2019, 214, 60-72.	2.4	22
14	Output Functional Control for Nonlinear Equations Driven by Anisotropic Mesh Adaption: The Navier–Stokes Equations. <i>SIAM Journal of Scientific Computing</i> , 2008, 30, 2817-2854.	1.3	21
15	Stability and error analysis of mixed finite-volume methods for advection dominated problems. <i>Computers and Mathematics With Applications</i> , 2006, 51, 681-696.	1.4	20
16	POD-assisted strategies for structural topology optimization. <i>Computers and Mathematics With Applications</i> , 2019, 77, 2804-2820.	1.4	18
17	Anisotropic error control for environmental applications. <i>Applied Numerical Mathematics</i> , 2008, 58, 1320-1339.	1.2	17
18	A multiscale formulation of the Discontinuous Petrov–Galerkin method for advective–diffusive problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 2819-2838.	3.4	15

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19	Mathematical modelling and numerical simulation of a glow-plug. Applied Numerical Mathematics, 2007, 57, 1125-1144.	1.2	12
20	Compressed solving: A numerical approximation technique for elliptic PDEs based on Compressed Sensing. Computers and Mathematics With Applications, 2015, 70, 1306-1335.	1.4	12
21	A theoretical study of COMpRessed SolVING for advection-diffusion-reaction problems. Mathematics of Computation, 2017, 87, 1-38.	1.1	12
22	The Effect of Anisotropic Mesh Adaptation on PDE-Constrained Optimal Control Problems. SIAM Journal on Control and Optimization, 2011, 49, 1793-1828.	1.1	11
23	A Discretization Scheme for an Extended Drift-Diffusion Model Including Trap-Assisted Phenomena. Journal of Computational Physics, 2000, 159, 197-212.	1.9	10
24	Stabilized finite elements for semiconductor device simulation. Computing and Visualization in Science, 2001, 3, 177-183.	1.2	10
25	A recovery-based error estimator for anisotropic mesh adaptation in CFD. Boletín De La Sociedad Española De Matemática Aplicada, 2010, 50, 115-137.	0.9	10
26	An optimization algorithm for automatic structural design. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113335.	3.4	10
27	Stabilized mixed finite elements for fluid models in semiconductors. Computing and Visualization in Science, 1999, 2, 139-147.	1.2	9
28	Time-resolved photocurrent and electric field measurements in high resistivity CdTe. Journal of Applied Physics, 2000, 87, 322-328.	1.1	9
29	Compliance stress constrained mass minimization for topology optimization on anisotropic meshes. SN Applied Sciences, 2020, 2, 1.	1.5	9
30	Current-Voltage Characteristics Simulation of Semiconductor Devices Using Domain Decomposition. Journal of Computational Physics, 1995, 119, 46-61.	1.9	7
31	Anisotropic mesh adaption for time dependent problems. International Journal for Numerical Methods in Fluids, 2008, 58, 1009-1015.	0.9	7
32	Anisotropic mesh adaptation for the generalized Ambrosio-Tortorelli functional with application to brittle fracture. Computers and Mathematics With Applications, 2018, 75, 2134-2152.	1.4	7
33	Effects of the Anisotropy of the Fault Zone Permeability on the Timing of Triggered Earthquakes: Insights from 3D-Coupled Fluid Flow and Geomechanical Deformation Modeling. Pure and Applied Geophysics, 2018, 175, 4131-4144.	0.8	6
34	Anisotropic Adapted Meshes for Image Segmentation: Application to Three-Dimensional Medical Data. SIAM Journal on Imaging Sciences, 2020, 13, 2189-2212.	1.3	6
35	A dimension-reduction model for brittle fractures on thin shells with mesh adaptivity. Mathematical Models and Methods in Applied Sciences, 2021, 31, 37-81.	1.7	6
36	Dual-primal mixed finite elements for elliptic problems. Numerical Methods for Partial Differential Equations, 2001, 17, 137-151.	2.0	5

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37	Model Adaptation Enriched with an Anisotropic Mesh Spacing for Nonlinear Equations: Application to Environmental and CFD Problems. Numerical Mathematics, 2013, 6, 447-478.	0.6	5
38	Mesh adaptation-aided image segmentation. Communications in Nonlinear Science and Numerical Simulation, 2019, 74, 147-166.	1.7	5
39	On a viscous-hydrodynamic model for semiconductors: numerical simulation and stability analysis. Computing and Visualization in Science, 2001, 4, 79-86.	1.2	4
40	The Benefits of Anisotropic Mesh Adaptation for Brittle Fractures Under Plane-Strain Conditions. SEMA SIMAI Springer Series, 2015, , 43-67.	0.4	4
41	Anisotropic Adaptive Meshes for Brittle Fractures: Parameter Sensitivity. Lecture Notes in Computational Science and Engineering, 2015, , 293-301.	0.1	4
42	Anisotropic Adaptation via a Zienkiewiczâ€Žhu Error Estimator for 2D Elliptic Problems. , 2010, , 645-653.		4
43	Waveletâ€ŽFourier CORSING techniques for multidimensional advectionâ€Ždiffusionâ€Žreaction equations. IMA Journal of Numerical Analysis, 2021, 41, 2744-2781.	1.5	3
44	Density-Based Inverse Homogenization with Anisotropically Adapted Elements. Lecture Notes in Computational Science and Engineering, 2020, , 211-221.	0.1	3
45	Efficient modeling of multimode guided acoustic wave propagation in deformed pipelines by hierarchical model reduction. Applied Numerical Mathematics, 2022, 173, 329-344.	1.2	2
46	Anisotropic mesh adaptivity in CFD. , 2005, , 171-182.		1
47	CMFWI: Coupled Multiscenario Full Waveform Inversion. Inverse Problems in Science and Engineering, 2017, 25, 939-964.	1.2	1
48	Parameter identification for the linear wave equation with Robin boundary condition. Journal of Inverse and Ill-Posed Problems, 2019, 27, 25-41.	0.5	1
49	Uzawa-based adaptive methods for linear output functionals. IMA Journal of Numerical Analysis, 2007, 28, 619-646.	1.5	0
50	Anisotropic Recovery-Based a Posteriori Error Estimators for Advection-Diffusion-Reaction Problems. , 2013, , 43-51.		0