

# Eugenio Aulisa

## List of Publications by Year in descending order

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69  
papers

1,018  
citations

687363

13  
h-index

454955

30  
g-index

72  
all docs

72  
docs citations

72  
times ranked

671  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interface reconstruction with least-squares fit and split advection in three-dimensional Cartesian geometry. <i>Journal of Computational Physics</i> , 2007, 225, 2301-2319.	3.8	200
2	A geometrical area-preserving Volume-of-Fluid advection method. <i>Journal of Computational Physics</i> , 2003, 192, 355-364.	3.8	122
3	A mixed markers and volume-of-fluid method for the reconstruction and advection of interfaces in two-phase and free-boundary flows. <i>Journal of Computational Physics</i> , 2003, 188, 611-639.	3.8	115
4	A surface marker algorithm coupled to an area-preserving marker redistribution method for three-dimensional interface tracking. <i>Journal of Computational Physics</i> , 2004, 197, 555-584.	3.8	72
5	Analysis of generalized Forchheimer flows of compressible fluids in porous media. <i>Journal of Mathematical Physics</i> , 2009, 50, .	1.1	55
6	Benchmark problems for wave propagation in elastic materials. <i>Computational Mechanics</i> , 2009, 43, 797-814.	4.0	49
7	A novel representation of the surface tension force for two-phase flow with reduced spurious currents. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 6239-6257.	6.6	30
8	A monolithic ALE Newton-Krylov solver with Multigrid-Richardson-Schwarz preconditioning for incompressible Fluid-Structure Interaction. <i>Computers and Fluids</i> , 2018, 174, 213-228.	2.5	25
9	A New Method for Evaluating the Productivity Index of Nonlinear Flows. <i>SPE Journal</i> , 2009, 14, 693-706.	3.1	23
10	A computational multilevel approach for solving 2D Navier-Stokes equations over non-matching grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 4604-4616.	6.6	22
11	MATHEMATICAL FRAMEWORK OF THE WELL PRODUCTIVITY INDEX FOR FAST FORCHHEIMER (NON-DARCY) FLOWS IN POROUS MEDIA. <i>Mathematical Models and Methods in Applied Sciences</i> , 2009, 19, 1241-1275.	3.3	22
12	A Multilevel Domain Decomposition Approach for Studying Coupled Flow Applications. <i>Communications in Computational Physics</i> , 2009, , 319-341.	1.7	16
13	Magnetic drug targeting simulations in blood flows with fluid-structure interaction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2954.	2.1	15
14	Geometric framework for modeling nonlinear flows in porous media, and its applications in engineering. <i>Nonlinear Analysis: Real World Applications</i> , 2010, 11, 1734-1751.	1.7	14
15	Boundary Control Problems in Convective Heat Transfer with Lifting Function Approach and Multigrid Vanka-Type Solvers. <i>Communications in Computational Physics</i> , 2015, 18, 621-649.	1.7	13
16	Long-term dynamics for well productivity index for nonlinear flows in porous media. <i>Journal of Mathematical Physics</i> , 2011, 52, 023506.	1.1	11
17	Block triangular preconditioners for linearization schemes of the Rayleigh-Bénard convection problem. <i>Numerical Linear Algebra With Applications</i> , 2017, 24, e2096.	1.6	9
18	A particle tracking algorithm for parallel finite element applications. <i>Computers and Fluids</i> , 2017, 159, 338-355.	2.5	9

#	ARTICLE	IF	CITATIONS
19	A non-conforming computational methodology for modeling coupled problems. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 2005, 63, e1445-e1454.	1.1	8
20	A multilevel domain decomposition approach to solving coupled applications in computational fluid dynamics. <i>International Journal for Numerical Methods in Fluids</i> , 2008, 56, 1139-1145.	1.6	8
21	Interface tracking with dynamically-redistributed surface markers in unstructured quadrangular grids. <i>Computers and Fluids</i> , 2006, 35, 1332-1343.	2.5	7
22	Macroscopic Theory for Capillary-Pressure Hysteresis. <i>Langmuir</i> , 2015, 31, 2390-2397.	3.5	7
23	Potential and Optimal Target Fixating Control of the Human Head/Eye Complex. <i>IEEE Transactions on Control Systems Technology</i> , 2015, 23, 796-804.	5.2	7
24	Construction of H-Refined Continuous Finite Element Spaces with Arbitrary Hanging Node Configurations and Applications to Multigrid Algorithms. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A480-A507.	2.8	7
25	Optimal Control Problems in Binocular Vision. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 5283-5289.	0.4	6
26	Velocity Control of a Counter-Flow Heat Exchanger. <i>IFAC-PapersOnLine</i> , 2016, 49, 104-109.	0.9	6
27	Monolithic coupling of the implicit material point method with the finite element method. <i>Computers and Structures</i> , 2019, 219, 1-15.	4.4	6
28	Continuous-time predator-prey systems with Allee effects in the prey. <i>Mathematics and Computers in Simulation</i> , 2014, 105, 1-16.	4.4	5
29	Analysis of an iterative scheme for approximate regulation for nonlinear systems. <i>International Journal of Robust and Nonlinear Control</i> , 2018, 28, 3140-3173.	3.7	5
30	An improved multigrid algorithm for n-irregular meshes with subspace correction smoother. <i>Computers and Mathematics With Applications</i> , 2018, 76, 620-632.	2.7	5
31	New preconditioning techniques for the steady and unsteady buoyancy driven flow problems. <i>Journal of Computational Physics</i> , 2018, 371, 244-260.	3.8	5
32	Analysis of the error in an iterative algorithm for asymptotic regulation of linear distributed parameter control systems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 1577-1606.	1.9	5
33	Fluid-structure interaction simulations of venous valves: A monolithic ALE method for large structural displacements. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2019, 35, e3156.	2.1	5
34	Fluid structure interaction problem with changing thickness beam and slightly compressible fluid. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2014, 7, 1133-1148.	1.1	5
35	A Marker-VOF Algorithm for Incompressible Flows With Interfaces. , 2002, , 905.		4
36	An example of thermal regulation of a two dimensional non-isothermal incompressible flow. , 2012, , .		4

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37	Upscaling of Forchheimer flows. <i>Advances in Water Resources</i> , 2014, 70, 77-88.	3.8	4
38	An adaptive mesh refinement strategy for finite element solution of the elliptic problem. <i>Computers and Mathematics With Applications</i> , 2018, 76, 224-244.	2.7	4
39	Computational p-Willmore Flow with Conformal Penalty. <i>ACM Transactions on Graphics</i> , 2020, 39, 1-16.	7.2	4
40	FLUID-STRUCTURE SIMULATIONS AND BENCHMARKING OF ARTERY ANEURYSMS UNDER PULSATILE BLOOD FLOW., 2017, , .		4
41	Computational Modeling of Highly Flexible Membrane Wings in Micro Air Vehicles. , 2006, , .		3
42	Time asymptotics of non-darcy flows controlled by total flux on the boundary. <i>Journal of Mathematical Sciences</i> , 2012, 184, 399-430.	0.4	3
43	FOV-equivalent block triangular preconditioners for generalized saddle-point problems. <i>Applied Mathematics Letters</i> , 2018, 75, 43-49.	2.7	3
44	Convergence estimates for multigrid algorithms with SSC smoothers and applications to overlapping domain decomposition. <i>Applied Numerical Mathematics</i> , 2018, 131, 16-38.	2.1	3
45	A field-split preconditioning technique for fluid-structure interaction problems with applications in biomechanics. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2020, 36, e3301.	2.1	3
46	Efficient quadrature rules for finite element discretizations of nonlocal equations. <i>Numerical Methods for Partial Differential Equations</i> , 2022, 38, 1767-1793.	3.6	3
47	Constructing isothermal curvature line coordinates on surfaces which admit them. <i>Open Mathematics</i> , 2013, 11, .	1.0	2
48	Tracking and optimal control problems in human head/eye coordination. , 2013, , .		2
49	A multilevel domain decomposition solver for monolithic fluid-structure interaction problems. , 2013, , .		2
50	Optimal Eye and Head Movement Control using q-parametrization. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 5290-5295.	0.4	2
51	The effect of viscosity in a tracking regulation problem for a counter-flow heat exchanger. , 2015, , .		2
52	Augmented Lagrangian-based preconditioners for steady buoyancy driven flow. <i>Applied Mathematics Letters</i> , 2018, 82, 1-7.	2.7	2
53	Fracture model reduction and optimization for Forchheimer flows in reservoirs. <i>Journal of Mathematical Physics</i> , 2019, 60, 051504.	1.1	2
54	Field-of-values analysis of preconditioned linearized Rayleigh-Bénard convection problems. <i>Journal of Computational and Applied Mathematics</i> , 2020, 369, 112582.	2.0	2

#	ARTICLE	IF	CITATIONS
55	Geometric model of the fracture as a manifold immersed in porous media. Journal of Mathematical Physics, 2021, 62, .	1.1	2
56	A New Method of Evaluating the Productivity Index for Nonlinear Flows. , 2007, , .		2
57	Stability analysis of inhomogeneous equilibrium for axially and transversely excited nonlinear beam. Communications on Pure and Applied Analysis, 2011, 10, 1447-1462.	0.8	2
58	New Advances in the Study of Generalized Willmore Surfaces and Flow. Geometry, Integrability and Quantization, 2016, 17, 133-142.	0.2	2
59	Tumor ablation due to inhomogeneous anisotropic diffusion in generic three-dimensional topologies. Physical Review E, 2020, 102, 062425.	2.1	2
60	Distributed Computational Method for Coupled Fluid Structure Thermal Interaction Applications. Journal of Algorithms and Computational Technology, 2010, 4, 291-309.	0.7	1
61	Regulation of a controlled Burgers' equation: Tracking and disturbance rejection for general time dependent signals. , 2013, , .		1
62	Well productivity index for compressible fluids and gases. Evolution Equations and Control Theory, 2016, 5, 1-36.	1.3	1
63	MULTIGRID SOLVER WITH DOMAIN DECOMPOSITION SMOOTHING FOR STEADY-STATE INCOMPRESSIBLE FSI PROBLEMS. , 2015, , .		1
64	Stability analysis of non-linear plates coupled with Darcy flows. Evolution Equations and Control Theory, 2013, 2, 193-232.	1.3	1
65	Accurate Approximate Regulation of Nonlinear Delay Differential Control Systems. , 2021, , .		1
66	A Multilevel Domain Decomposition Methodology for Solving Coupled Problems in Fluid-Structure-Thermal Interaction. , 2006, , 417-417.		1
67	CFD analysis and overheating control of a turbine. International Journal of Thermal Sciences, 2004, 43, 1119-1124.	4.9	0
68	Analysis of the Error for Harmonic Tracking Using an Iterative Scheme in Geometric Control. Geometry, Integrability and Quantization, 2016, 17, 143-171.	0.2	0
69	Quaternionic remeshing during surface evolution. AIP Conference Proceedings, 2022, , .	0.4	0