Sandro Manservisi

List of Publications by Year
in descending order

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71 papers	1,588 citations	331670 21 h-index	315739 38 g-index
74 all docs	74 docs citations	74 times ranked	821 citing authors

#	Article	IF	Citations
1	A New Anisotropic Four-Parameter Turbulence Model for Low Prandtl Number Fluids. Fluids, 2022, 7, 6.	1.7	1
2	Analysis and Computations of Optimal Control Problems for Boussinesq Equations. Fluids, 2022, 7, 203.	1.7	5
3	Optimal Pressure Boundary Control of Steady Multiscale Fluid-Structure Interaction Shell Model Derived from Koiter Equations. Fluids, 2021, 6, 149.	1.7	1
4	ASTEC code DBA analysis of a passive mitigation strategy on a generic IRIS SMR. Annals of Nuclear Energy, 2021, 156, 108194.	1.8	3
5	An optimal control approach to a fluid-structure interaction parameter estimation problem with inequality constraints. Computers and Fluids, 2021, 226, 104999.	2.5	0
6	ASTEC - RAVEN coupling for uncertainty analysis of an ingress of coolant event in fusion plants. Fusion Engineering and Design, 2021, 169, 112442.	1.9	3
7	A Logarithmic Turbulent Heat Transfer Model in Applications with Liquid Metals for Pr = 0.01â€“0.025. Applied Sciences (Switzerland), 2020, 10, 4337.	2.5	8
8	On the Optimal Control of Stationary Fluidâ€“Structure Interaction Systems. Fluids, 2020, 5, 144.	1.7	10
9	CFD simulation of turbulent flows over wire-wrapped nuclear reactor bundles using immersed boundary method. Journal of Physics: Conference Series, 2020, 1599, 012022.	0.4	2
10	VOF evaluation of the surface tension by using variational representation and Galerkin interpolation projection. Journal of Computational Physics, 2019, 395, 537-562.	3.8	4
11	Projection algorithm for simulation of fluid flow around moving objects with immersed boundary method. Journal of Physics: Conference Series, 2019, 1224, 012002.	0.4	1
12	Numerical simulation of a turbulent Lead Bismuth Eutectic flow inside a 19 pin nuclear reactor bundle with a four logarithmic parameter turbulence model. Journal of Physics: Conference Series, 2019, 1224, 012030.	0.4	3
13	An adjoint based pressure boundary optimal control approach for fluid-structure interaction problems. Computers and Fluids, 2019, 182, 118-127.	2.5	6
14	Numerical simulation of forced and mixed convection turbulent liquid sodium flow over a vertical backward facing step with a four parameter turbulence model. International Journal of Heat and Mass Transfer, 2019, 135, 591-603.	4.8	16
15	A projection method for coupling two-phase VOF and fluid structure interaction simulations. Journal of Computational Physics, 2018, 354, 646-671.	3.8	8
16	Numerical simulation of a falling drop on a bending wall by coupling a VOF method with a fluid structure interaction solver. AIP Conference Proceedings, 2018, , .	0.4	1
17	Thermal-hydraulic analysis of the LORELEI test design by means of CATHARE2 V2.5. Nuclear Engineering and Design, 2017, 322, 397-411.	1.7	0
18	Optimal control problems for the Navierâ€“Stokes system coupled with the k-Ï‰ turbulence model. Computers and Mathematics With Applications, 2016, 71, 2389-2406.	2.7	11

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19	Vofi â€" A library to initialize the volume fraction scalar field. Computer Physics Communications, 2016, 200, 291-299.	7.5	25
20	A kâ€"<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si14.gif" overflow="scroll"><mml:mrow><mml:mi mathvariant="normal">Î©</mml:mi></mml:mrow></mml:math>â€"<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si12.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>k</mml:mi></mml:mrow><mml:mrow><mml:mi>Î¸</mml:mi></mml	4.8	22
21	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si16.gif" overflow="scroll"><mml:mrow>A penalty-projection algorithm for a monolithic fluid-structure interaction solver. Journal of Computational Physics, 2016, 313, 13-30.	3.8	7
22	Numerical simulations of optimal control problems for the Reynolds averaged Navierâ€"Stokes system closed with a two-equation turbulence model. Computers and Fluids, 2016, 125, 130-143.	2.5	13
23	Boundary Control Problems in Convective Heat Transfer with Lifting Function Approach and Multigrid Vanka-Type Solvers. Communications in Computational Physics, 2015, 18, 621-649.	1.7	13
24	CFD simulations in heavy liquid metal flows for square lattice bare rod bundle geometries with a four parameter heat transfer turbulence model. Nuclear Engineering and Design, 2015, 295, 251-260.	1.7	28
25	Heat transfer to liquid metals in a hexagonal rod bundle with grid spacers: Experimental and simulation results. Nuclear Engineering and Design, 2015, 290, 27-39.	1.7	38
26	Numerical integration of implicit functions for the initialization of the VOF function. Computers and Fluids, 2015, 113, 42-52.	2.5	23
27	Preliminary Results on the Coupling of a Three-Dimensional Lead Fast Reactor Model and a One-Dimensional External Loop. , 2014, , .		0
28	Triangular rod bundle simulations of a CFD Î²-Ïµ-Î²-Ïµ heat transfer turbulence model for heavy liquid metals. Nuclear Engineering and Design, 2014, 273, 251-270.	1.7	48
29	A CFD four parameter heat transfer turbulence model for engineering applications in heavy liquid metals. International Journal of Heat and Mass Transfer, 2014, 69, 312-326.	4.8	66
30	Review of split and unsplit geometric advection algorithms. , 2013, , .		3
31	A Distributed Control Approach for the Boundary Optimal Control of the Steady MHD Equations. Communications in Computational Physics, 2013, 14, 722-752.	1.7	10
32	A multilevel domain decomposition solver for monolithic fluid-structure interaction problems. , 2013, , .		2
33	An optimal constrained approach for divergence-free velocity interpolation and multilevel VOF method. Computers and Fluids, 2011, 47, 101-114.	2.5	13
34	On the properties and limitations of the height function method in two-dimensional Cartesian geometry. Journal of Computational Physics, 2011, 230, 851-862.	3.8	43
35	Distributed Computational Method for Coupled Fluid Structure Thermal Interaction Applications. Journal of Algorithms and Computational Technology, 2010, 4, 291-309.	0.7	1
36	Simulation of axisymmetric jets with a finite element Navierâ€"Stokes solver and a multilevel VOF approach. Journal of Computational Physics, 2010, 229, 6853-6873.	3.8	23

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37	A FEM SOLVER COUPLED TO A MULTILEVEL VOF METHOD FOR SIMULATION OF AXISYMMETRIC JETS AND TO A FRONT-TRACKING METHOD FOR SIMULATION OF SPREADING DROPLETS. Atomization and Sprays, 2010, 20, 115-131.	0.8	2
38	A geometrical predictorâ€“corrector advection scheme and its application to the volume fraction function. Journal of Computational Physics, 2009, 228, 406-419.	3.8	42
39	A variational approach to the contact angle dynamics of spreading droplets. Computers and Fluids, 2009, 38, 406-424.	2.5	51
40	A multilevel domain decomposition approach to solving coupled applications in computational fluid dynamics. International Journal for Numerical Methods in Fluids, 2008, 56, 1139-1145.	1.6	8
41	Interface reconstruction with least-squares fit and split advection in three-dimensional Cartesian geometry. Journal of Computational Physics, 2007, 225, 2301-2319.	3.8	200
42	Numerical Analysis of Vankaâ€Type Solvers for Steady Stokes and Navierâ€“Stokes Flows. SIAM Journal on Numerical Analysis, 2006, 44, 2025-2056.	2.3	34
43	A computational multilevel approach for solving 2D Navierâ€“Stokes equations over non-matching grids. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 4604-4616.	6.6	22
44	A novel representation of the surface tension force for two-phase flow with reduced spurious currents. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 6239-6257.	6.6	30
45	Interface tracking with dynamically-redistributed surface markers in unstructured quadrangular grids. Computers and Fluids, 2006, 35, 1332-1343.	2.5	7
46	On a low-dimensional model for magnetostriction. Physica B: Condensed Matter, 2006, 372, 378-382.	2.7	10
47	A Multilevel Domain Decomposition Methodology for Solving Coupled Problems in Fluid-Structure-Thermal Interaction. , 2006, , 417-417.		1
48	A non-conforming computational methodology for modeling coupled problems. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e1445-e1454.	1.1	8
49	Modelling of radiation transport. Nuclear Instruments & Methods in Physics Research B, 2004, 213, 75-81.	1.4	0
50	Bremsstrahlung emission spectrum for electron microprobe analysis. Nuclear Instruments & Methods in Physics Research B, 2004, 213, 134-138.	1.4	1
51	Fokker-Planck modeling for particle slowing down and thermalization in a Maxwellian plasma. European Physical Journal D, 2004, 29, 379-389.	1.3	0
52	A surface marker algorithm coupled to an area-preserving marker redistribution method for three-dimensional interface tracking. Journal of Computational Physics, 2004, 197, 555-584.	3.8	72
53	A geometrical area-preserving Volume-of-Fluid advection method. Journal of Computational Physics, 2003, 192, 355-364.	3.8	122
54	A mixed markers and volume-of-fluid method for the reconstruction and advection of interfaces in two-phase and free-boundary flows. Journal of Computational Physics, 2003, 188, 611-639.	3.8	115

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55	A Marker-VOF Algorithm for Incompressible Flows With Interfaces. , 2002, , 905.		4
56	Optimal Design of Thermo-Electrical Flanges. Mathematics in Industry, 2002, , 225-229.	0.3	0
57	Flow Matching by Shape Design for the Navier-Stokes System. , 2001, , 279-289.		0
58	On a shape control problem for the stationary Navier-Stokes equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2000, 34, 1233-1258.	1.9	29
59	Analysis and approximation for linear feedback control for tracking the velocity in Navierâ€“Stokes flows. Computer Methods in Applied Mechanics and Engineering, 2000, 189, 803-823.	6.6	25
60	A variational inequality formulation of an inverse elasticity problem. Applied Numerical Mathematics, 2000, 34, 99-126.	2.1	18
61	An optimal control approach to an inverse nonlinear elastic shell problem applied to car windscreen design. Computer Methods in Applied Mechanics and Engineering, 2000, 189, 463-480.	6.6	9
62	On some optimal control problems for the heat radiative transfer equation. ESAIM - Control, Optimisation and Calculus of Variations, 2000, 5, 425-444.	1.3	4
63	Analysis and Approximation of the Velocity Tracking Problem for Navier--Stokes Flows with Distributed Control. SIAM Journal on Numerical Analysis, 2000, 37, 1481-1512.	2.3	115
64	The Velocity Tracking Problem for Navier--Stokes Flows With Boundary Control. SIAM Journal on Control and Optimization, 2000, 39, 594-634.	2.1	80
65	The Velocity Tracking Problem for Navier--Stokes Flows with Bounded Distributed Controls. SIAM Journal on Control and Optimization, 1999, 37, 1913-1945.	2.1	85
66	Computations of Optimal Controls for Incompressible Flows. International Journal of Computational Fluid Dynamics, 1998, 11, 181-191.	1.2	7
67	Space distribution and energy straggling of charged particles via Fokker-Planck equation. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1996, 18, 435-448.	0.4	3
68	Electron distribution function in a strong electric field. , 1993, , .		0
69	Slowing-Down Time of Fast Electrons in Plasmas via the Fokker-Planck Equation. Nuclear Science and Engineering, 1992, 112, 296-300.	1.1	6
70	Charged-particle distribution in velocity, angle and time by Fokker-Planck equation. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1992, 14, 9-25.	0.4	9
71	A multigrid local smoother approach for a domain decomposition solver over nonâ€matching grids. Numerical Methods for Partial Differential Equations, 0, , .	3.6	0