

Stefano Ubertini

List of Publications by Year in descending order

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114
papers

2,848
citations

147786

31
h-index

206102

48
g-index

117
all docs

117
docs citations

117
times ranked

2087
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling solid oxide fuel cell operation: Approaches, techniques and results. <i>Journal of Power Sources</i> , 2006, 159, 543-559.	7.8	151
2	Technical and economic assessment of a SOFC-based energy system for combined cooling, heating and power. <i>Applied Energy</i> , 2017, 192, 563-574.	10.1	86
3	Trigenerative micro compressed air energy storage: Concept and thermodynamic assessment. <i>Applied Energy</i> , 2015, 158, 243-254.	10.1	85
4	Lattice Boltzmann simulations of phase-separating flows at large density ratios: the case of doubly-attractive pseudo-potentials. <i>Soft Matter</i> , 2010, 6, 4357.	2.7	84
5	Optimization of CHCP (combined heat power and cooling) systems operation strategy using dynamic programming. <i>Energy</i> , 2014, 66, 387-400.	8.8	84
6	Experimental and numerical analysis of high pressure diesel spray-wall interaction. <i>International Journal of Multiphase Flow</i> , 2007, 33, 742-765.	3.4	82
7	Recent advances of Lattice Boltzmann techniques on unstructured grids. <i>Progress in Computational Fluid Dynamics</i> , 2005, 5, 85.	0.2	79
8	Mesoscopic simulation of non-ideal fluids with self-tuning of the equation of state. <i>Soft Matter</i> , 2012, 8, 3798.	2.7	69
9	Lattice Boltzmann Methods for Multiphase Flow Simulations across Scales. <i>Communications in Computational Physics</i> , 2011, 9, 269-296.	1.7	68
10	Experimental and numerical analysis of a radial flow solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 4559-4574.	7.1	67
11	Three-dimensional water entry of a solid body: A computational study. <i>Journal of Fluids and Structures</i> , 2016, 66, 36-53.	3.4	66
12	A Comparison Between the Interpolated Bounce-Back Scheme and the Immersed Boundary Method to Treat Solid Boundary Conditions for Laminar Flows in the Lattice Boltzmann Framework. <i>Journal of Scientific Computing</i> , 2014, 61, 477-489.	2.3	64
13	Transverse harmonic oscillations of laminae in viscous fluids: a lattice Boltzmann study. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 2456-2466.	3.4	63
14	Hydroelastic analysis of hull slamming coupling lattice Boltzmann and finite element methods. <i>Computers and Structures</i> , 2014, 138, 24-35.	4.4	55
15	A partitioned approach for two-dimensional fluid-structure interaction problems by a coupled lattice Boltzmann-finite element method with immersed boundary. <i>Journal of Fluids and Structures</i> , 2014, 45, 202-215.	3.4	53
16	Aeroelastic study of flexible flapping wings by a coupled lattice Boltzmann-finite element approach with immersed boundary method. <i>Journal of Fluids and Structures</i> , 2014, 49, 516-533.	3.4	53
17	Performance estimation and experimental measurements of a photovoltaic roof. <i>Renewable Energy</i> , 2003, 28, 1833-1850.	8.9	52
18	Direct numerical evidence of stress-induced cavitation. <i>Journal of Fluid Mechanics</i> , 2013, 728, 362-375.	3.4	51

#	ARTICLE	IF	CITATIONS
19	Improved Lattice Boltzmann Without Parasitic Currents for Rayleigh-Taylor Instability. <i>Communications in Computational Physics</i> , 2010, 7, 423-444.	1.7	50
20	Unstructured lattice Boltzmann method in three dimensions. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 49, 619-633.	1.6	48
21	Assessment of PIV-based analysis of water entry problems through synthetic numerical datasets. <i>Journal of Fluids and Structures</i> , 2015, 55, 484-500.	3.4	48
22	A coupled lattice Boltzmann-finite element approach for two-dimensional fluid-structure interaction. <i>Computers and Fluids</i> , 2013, 86, 558-568.	2.5	46
23	Proton exchange membrane fuel cell for cooperating households: A convenient combined heat and power solution for residential applications. <i>Energy</i> , 2015, 90, 1229-1238.	8.8	46
24	Combined heat, cooling, and power systems based on half effect absorption chillers and polymer electrolyte membrane fuel cells. <i>Applied Energy</i> , 2019, 235, 747-760.	10.1	42
25	Innovative method for energy management: Modelling and optimal operation of energy systems. <i>Energy and Buildings</i> , 2009, 41, 436-444.	6.7	40
26	Experimental and numerical analysis of energy dissipation in a sloshing absorber. <i>Journal of Fluids and Structures</i> , 2017, 68, 466-481.	3.4	40
27	Lattice Boltzmann Analysis of Fluid-Structure Interaction with Moving Boundaries. <i>Communications in Computational Physics</i> , 2013, 13, 823-834.	1.7	39
28	Smart integration of photovoltaic production, heat pump and thermal energy storage in residential applications. <i>Solar Energy</i> , 2019, 192, 133-143.	6.1	39
29	Analysis of the Influence of Thermal Energy Storage on the Optimal Management of a Trigeneration Plant. <i>Energy Procedia</i> , 2014, 45, 1295-1304.	1.8	36
30	Lattice Boltzmann modeling of water entry problems. <i>International Journal of Modern Physics C</i> , 2014, 25, 1441012.	1.7	34
31	Lattice Boltzmann Modeling of Diesel Spray Formation and Break-Up. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 3, 582-593.	0.2	33
32	Lattice Boltzmann Simulation of Cavitating Flows. <i>Communications in Computational Physics</i> , 2013, 13, 685-695.	1.7	33
33	Analysis of a fuel cell combined heat and power plant under realistic smart management scenarios. <i>Applied Energy</i> , 2018, 216, 60-72.	10.1	33
34	Lattice Boltzmann Finite Volume Formulation with Improved Stability. <i>Communications in Computational Physics</i> , 2012, 12, 42-64.	1.7	31
35	Numerical stability of Entropic versus positivity-enforcing Lattice Boltzmann schemes. <i>Mathematics and Computers in Simulation</i> , 2006, 72, 227-231.	4.4	30
36	Modern lattice Boltzmann methods for multiphase microflows. <i>IMA Journal of Applied Mathematics</i> , 2011, 76, 712-725.	1.6	30

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37	Integrated numerical and experimental study of a MCFC-plasma gasifier energy system. <i>Applied Energy</i> , 2012, 97, 734-742.	10.1	30
38	Explorative study on Compressed Air Systems™ energy efficiency in production and use: First steps towards the creation of a benchmarking system for large and energy-intensive industrial firms. <i>Applied Energy</i> , 2018, 227, 436-448.	10.1	30
39	Finite-volume lattice Boltzmann modeling of thermal transport in nanofluids. <i>Computers and Fluids</i> , 2013, 77, 56-65.	2.5	29
40	Hydrodynamics in Porous Media: A Finite Volume Lattice Boltzmann Study. <i>Journal of Scientific Computing</i> , 2014, 59, 80-103.	2.3	29
41	SOFC Management in Distributed Energy Systems. <i>Journal of Fuel Cell Science and Technology</i> , 2011, 8, .	0.8	28
42	Experimental performance analysis of an annular diffuser with and without struts. <i>Experimental Thermal and Fluid Science</i> , 2000, 22, 183-195.	2.7	27
43	Experiments on the Dynamics of Flexible Cylindrical Shells Impacting on a Water Surface. <i>Experimental Mechanics</i> , 2015, 55, 1537-1550.	2.0	27
44	Finite volume formulation of thermal lattice Boltzmann method. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2014, 24, 270-289.	2.8	25
45	Techno-economic analysis of battery electricity storage towards self-sufficient buildings. <i>Energy Conversion and Management</i> , 2022, 256, 115313.	9.2	24
46	The unstructured lattice Boltzmann method for non-Newtonian flows. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P06005.	2.3	23
47	Highly efficient electricity generation through a hybrid molten carbonate fuel cell-closed loop gas turbine plant. <i>Energy Conversion and Management</i> , 2001, 42, 1657-1672.	9.2	22
48	Modeling Carbon Monoxide Direct Oxidation in Solid Oxide Fuel Cells. <i>Journal of Fuel Cell Science and Technology</i> , 2009, 6, .	0.8	22
49	Structural health monitoring of cylindrical bodies under impulsive hydrodynamic loading by distributed FBG strain measurements. <i>Measurement Science and Technology</i> , 2017, 28, 024006.	2.6	22
50	Asymmetric water impact of a two dimensional wedge: A systematic numerical study with transition to ventilating flow conditions. <i>Ocean Engineering</i> , 2018, 147, 386-398.	4.3	21
51	Comparing Energy and Cost Optimization in Distributed Energy Systems Management. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2014, 136, .	2.3	20
52	Meta-heuristic optimization for a high-detail smart management of complex energy systems. <i>Energy Conversion and Management</i> , 2018, 160, 341-353.	9.2	20
53	Real Time Energy Performance Control for Industrial Compressed Air Systems: Methodology and Applications. <i>Energies</i> , 2019, 12, 3935.	3.1	20
54	Unstructured lattice Boltzmann equation with memory. <i>Mathematics and Computers in Simulation</i> , 2006, 72, 237-241.	4.4	19

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55	Injection Pressure Fluctuations Model Applied to a Multidimensional Code for Diesel Engines Simulation. <i>Journal of Engineering for Gas Turbines and Power</i> , 2006, 128, 694-701.	1.1	19
56	Flow development and turbulence length scales within an annular gas turbine exhaust diffuser. <i>Experimental Thermal and Fluid Science</i> , 2000, 22, 55-70.	2.7	18
57	Optimization Strategies for the Entropic Lattice Boltzmann Method. <i>Journal of Scientific Computing</i> , 2007, 30, 369-387.	2.3	18
58	Hybrid Hydrogen and Mechanical Distributed Energy Storage. <i>Energies</i> , 2017, 10, 2035.	3.1	18
59	APPLICATIONS OF FINITE-DIFFERENCE LATTICE BOLTZMANN METHOD TO BREAKUP AND COALESCENCE IN MULTIPHASE FLOWS. <i>International Journal of Modern Physics C</i> , 2009, 20, 1803-1816.	1.7	16
60	Inter-sectorial benchmarking of compressed air generation energy performance: Methodology based on real data gathering in large and energy-intensive industrial firms. <i>Applied Energy</i> , 2018, 217, 266-280.	10.1	16
61	Numerical modeling of an automotive derivative polymer electrolyte membrane fuel cell cogeneration system with selective membranes. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 4508-4523.	7.1	16
62	Numerical Assessment of Similitude Parameters and Dimensional Analysis for Water Entry Problems. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-15.	1.1	15
63	Experimental assessment of buoyant cylinder impacts through high-speed image acquisition. <i>Journal of Marine Science and Technology</i> , 2018, 23, 67-80.	2.9	15
64	MODELING OF BIFURCATION PHENOMENA IN SUDDENLY EXPANDED FLOWS WITH A NEW FINITE VOLUME LATTICE BOLTZMANN METHOD. <i>International Journal of Modern Physics C</i> , 2011, 22, 977-1003.	1.7	14
65	Maturity-based approach for the improvement of energy efficiency in industrial compressed air production and use systems. <i>Energy</i> , 2019, 186, 115879.	8.8	14
66	Enhanced energy dissipation through 3D printed bottom geometry in Tuned Sloshing Dampers. <i>Journal of Fluids and Structures</i> , 2021, 106, 103377.	3.4	14
67	New efficiency opportunities arising from intelligent real time control tools applications: the case of Compressed Air Systems™ energy efficiency in production and use. <i>Energy Procedia</i> , 2019, 158, 4198-4203.	1.8	13
68	Fluid Structure Interaction of Buoyant Bodies with Free Surface Flows: Computational Modelling and Experimental Validation. <i>Water (Switzerland)</i> , 2019, 11, 1048.	2.7	13
69	Nanofluid Heat Transfer in Wavy-Wall Channels with Different Geometries: A Finite-Volume Lattice Boltzmann Study. <i>Journal of Scientific Computing</i> , 2020, 83, 1.	2.3	13
70	Ultralow Carbon Dioxide Emission MCFC Based Power Plant. <i>Journal of Fuel Cell Science and Technology</i> , 2011, 8, .	0.8	12
71	UNSTRUCTURED LATTICE BOLTZMANN METHOD FOR HEMODYNAMIC FLOWS WITH SHEAR-DEPENDENT VISCOSITY. <i>International Journal of Modern Physics C</i> , 2010, 21, 795-811.	1.7	11
72	Assessing and Improving Compressed Air Systems™ Energy Efficiency in Production and use: Findings from an Explorative Study in Large and Energy-intensive Industrial Firms. <i>Energy Procedia</i> , 2017, 105, 3112-3117.	1.8	11

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73	Valorization of winery and distillery by-products by hydrothermal carbonization. Scientific Reports, 2021, 11, 23973.	3.3	10
74	Efficiency Upgrading of an Ambient Pressure Molten Carbonate Fuel Cell Plant Through the Introduction of an Indirect Heated Gas Turbine. Journal of Engineering for Gas Turbines and Power, 2002, 124, 858-866.	1.1	9
75	Techno-Economic Analysis of Biodiesel Production from Microbial Oil Using Cardoon Stalks as Carbon Source. Energies, 2021, 14, 1473.	3.1	9
76	The Role of CFD on the Aerodynamic Investigation of Motorcycles. , 0, , .		8
77	Aerodynamic Investigation of a Scooter in the University of Perugia Wind Tunnel Facility. , 0, , .		7
78	Design of a solar collector for year-round climatization. Renewable Energy, 2003, 28, 623-645.	8.9	7
79	Multidimensional modelling of gaseous injection: Analysis of an impinging jet. International Journal of Heat and Fluid Flow, 2010, 31, 909-915.	2.4	7
80	AN ANALYTICAL MODEL FOR HYBRID VEHICLES DESIGN. , 2005, , .		6
81	Magnetically driven droplet break-up and vaporization: a lattice Boltzmann study. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P05010.	2.3	6
82	A COMPARISON OF SINGLE-TIME RELAXATION LATTICE BOLTZMANN SCHEMES WITH ENHANCED STABILITY. International Journal of Modern Physics C, 2006, 17, 1375-1390.	1.7	5
83	Numerical Assessment of an Automotive Derivative CHP Fuel Cell System. Energy Procedia, 2017, 105, 1564-1569.	1.8	5
84	Comparison of integrated fuel processing options for biogas-fed solid-oxide fuel cell plants. E3S Web of Conferences, 2021, 238, 04002.	0.5	5
85	High-Efficiency Combined Heat and Power through a High-Temperature Polymer Electrolyte Membrane Fuel Cell and Gas Turbine Hybrid System. Sustainability, 2021, 13, 12515.	3.2	5
86	Numerical simulation of gaseous fuel injection: A new methodology for multi-dimensional modelling. International Journal for Numerical Methods in Fluids, 2009, 64, n/a-n/a.	1.6	4
87	Effect of Strain Measurement Layout on Damage Detection and Localization in a Free Falling Compliant Cylinder Impacting a Water Surface. Fluids, 2021, 6, 58.	1.7	4
88	Evaluating the Performances of Advanced Powertrains. , 2004, , .		4
89	Experimental and Computational Analysis of the Aerodynamic Performances of a Maxi-Scooter. , 0, , .		3
90	Discrete simulation of fluid dynamics: applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2384-2386.	3.4	3

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91	Direct Numerical Simulation of Flow Induced Cavitation in Orifices. SAE International Journal of Fuels and Lubricants, 2013, 6, 915-921.	0.2	3
92	Front-tracking lattice Boltzmann simulation of a wedge water entry. AIP Conference Proceedings, 2015, , .	0.4	3
93	In-depth characterization through dimensional analysis of the performance of a membrane-integrated fuel processor for high purity hydrogen generation. International Journal of Hydrogen Energy, 2021, 47, 2442-2442.	7.1	3
94	Feasibility and Performance of an Ambient Pressure MCFC Combined With a Commercial Gas Turbine. , 2002, , 869.		2
95	Optimal Management of Power Systems. , 0, , .		2
96	Analysis of Deformation in an Aluminium Hull Impacting Water Free Surface. Fluids, 2022, 7, 49.	1.7	2
97	Bus Hybridization Effects in the Urban Area of Rome. , 2007, , .		1
98	A general splash model for direct injection engine multi-dimensional simulation. , 0, , .		1
99	Multidimensional Modelling of Gaseous Injection in Modern Direct Injection Internal Combustion Engines: Analisis of Different Fuel Injection Strategies.. , 0, , .		1
100	Lattice Boltzmann Simulation of a Cavitating Diesel Injector Nozzle. , 0, , .		1
101	Discrete simulation of fluid dynamics: methods. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2152-2154.	3.4	1
102	Optimization of CHCP Operation Strategy: Cost vs Primary Energy Consumption Minimization. , 2013, , .		1
103	The Role of Very Low-Reynolds Hydrodynamics on the Transfer of Information Among Active Agents. Journal of Statistical Physics, 2015, 161, 1390-1403.	1.2	1
104	Control strategy optimization of HVAC plants. AIP Conference Proceedings, 2015, , .	0.4	1
105	Fluid-structure interaction problem of a deformable lamina solved with an original OpenFOAM code. Procedia Structural Integrity, 2019, 24, 939-948.	0.8	1
106	Multidimensional Modeling of SCR Systems via the Lattice Boltzmann Method. , 0, , .		1
107	Computational Fluid Dynamics Through an Unstructured Lattice Boltzmann Scheme. , 2003, , 203.		0
108	Lattice Boltzmann Simulation of Diesel Injection. , 2012, , .		0

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109	Lattice-Boltzmann Simulations of Hull Impacting Water. , 2012, , .		0
110	Energy Audits in the Service Sector Buildings. , 2014, , .		0
111	Three dimensional numerical simulation of water entry problem. AIP Conference Proceedings, 2015, , .	0.4	0
112	Development of a system-level model for fuel cell power units operated with syngas. AIP Conference Proceedings, 2015, , .	0.4	0
113	Strongly coupled partitioned approach for fluid structure interaction in free surface flows. AIP Conference Proceedings, 2016, , .	0.4	0
114	Ultra Low Carbon Dioxide Emission MCFC Based Power Plant. , 2009, , .		0