

Maria Vittoria Salvetti

List of Publications by Year in descending order

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119
papers

2,696
citations

172207

29
h-index

197535

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131
all docs

131
docs citations

131
times ranked

1744
citing authors

#	ARTICLE	IF	CITATIONS
1	Mixing sensitivity to the inclination of the lateral walls in a T-mixer. Chemical Engineering and Processing: Process Intensification, 2022, 170, 108699.	1.8	5
2	Effects of flow unsteadiness and chemical kinetics on the reaction yield in a T-microreactor. Chemical Engineering Research and Design, 2022, 179, 1-15.	2.7	4
3	Mixing Improvement in a T-Shaped Micro-Junction through Small Rectangular Cavities. Micromachines, 2022, 13, 159.	1.4	6
4	Concurrent theoretical, experimental and numerical analyses of mixed-flow turbopump design. Aerospace Science and Technology, 2022, 123, 107459.	2.5	5
5	Flow regimes, mixing and reaction yield of a mixture in an X-microreactor. Chemical Engineering Journal, 2022, 437, 135113.	6.6	8
6	Spanwise-Discontinuous Grooves for Separation Delay and Drag Reduction of Bodies with Vortex Shedding. Fluids, 2022, 7, 121.	0.8	3
7	A UQ based calibration for the CFD modeling of the gas dispersion from an LNG pool. Chemical Engineering Research and Design, 2022, 162, 1043-1056.	2.7	3
8	Integrating in-vivo Data in CFD Simulations and in in-vitro Experiments of the Hemodynamic in Healthy and Pathologic Thoracic Aorta. Lecture Notes in Computer Science, 2022, , 208-219.	1.0	1
9	10.1063/5.0033765.3., 2021, , .		0
10	Unsteady flow regimes in arrow-shaped micro-mixers with different tilting angles. Physics of Fluids, 2021, 33, .	1.6	30
11	A Study on the Effect of Flow Unsteadiness on the Yield of a Chemical Reaction in a T Micro-Reactor. Micromachines, 2021, 12, 242.	1.4	7
12	Effect of stratification on the mixing and reaction yield in a T-shaped micro-mixer. Physical Review Fluids, 2021, 6, .	1.0	22
13	Turbopump Design: Comparison of Numerical Simulations to an Already Validated Reduced-Order Model. Journal of Physics: Conference Series, 2021, 1909, 012029.	0.3	0
14	Hemodynamics and stresses in numerical simulations of the thoracic aorta: Stochastic sensitivity analysis to inlet flow-rate waveform. Computers and Fluids, 2021, 230, 105123.	1.3	16
15	Flow around a 5:1 rectangular cylinder: Effects of upstream-edge rounding. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 204, 104237.	1.7	25
16	Comparison of Numerical Simulations to a Reduced-Order Model Extended with Splitter Blades. , 2020, , .		0
17	The role of flow features and chemical kinetics on the reaction yield in a T-shaped micro-reactor. Chemical Engineering Journal, 2020, 396, 125223.	6.6	29
18	Stochastic calibration of cavitation model parameters for simulations of 3-phase injector internal flows. Computers and Fluids, 2020, 205, 104581.	1.3	5

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19	Numerical investigation of skewed spatially evolving mixing layers. <i>Journal of Fluid Mechanics</i> , 2020, 897, .	1.4	2
20	An Overview of Flow Features and Mixing in Micro T and Arrow Mixers. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3669-3686.	1.8	46
21	A simple model for deep dynamic stall conditions. <i>Wind Energy</i> , 2020, 23, 915-938.	1.9	7
22	Appraisal and calibration of the actuator line model for the prediction of turbulent separated wakes. <i>Wind Energy</i> , 2020, 23, 1231-1248.	1.9	9
23	Comparison Between Numerical and MRI Data of Ascending Aorta Hemodynamics in a Circulatory Mock Loop. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 898-907.	0.3	5
24	Effects of the Distribution in Space of the Velocity-Inlet Condition in Hemodynamic Simulations of the Thoracic Aorta. <i>Lecture Notes in Computer Science</i> , 2020, , 63-74.	1.0	5
25	Uncertainty Quantification Applied to Hemodynamic Simulations of Thoracic Aorta Aneurysms: Sensitivity to Inlet Conditions. <i>Lecture Notes in Computational Science and Engineering</i> , 2020, , 171-192.	0.1	2
26	Flow Around a 5:1 Rectangular Cylinder: Effects of the Rounding of the Upstream Corners. <i>ERCOFTAC Series</i> , 2020, , 85-90.	0.1	0
27	Effects of Spanwise-Discontinuous Contoured Transverse Grooves on Flow Separation and Vortex Shedding. <i>ERCOFTAC Series</i> , 2020, , 97-102.	0.1	0
28	Unsteady Flow Regimes in a T-Shaped Micromixer: Mixing and Characteristic Frequencies. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 13340-13356.	1.8	36
29	A Lagrangian probability-density-function model for collisional turbulent fluid-particle flows. <i>Journal of Fluid Mechanics</i> , 2019, 862, 449-489.	1.4	14
30	Stochastic sensitivity analysis of numerical simulations of injector internal flows to cavitation modeling parameters. <i>Computers and Fluids</i> , 2019, 183, 130-147.	1.3	5
31	Large Eddy Simulation of a Wind Farm Experiment. <i>ERCOFTAC Series</i> , 2019, , 595-601.	0.1	1
32	Flow Separation Delay and Drag Reduction Through Contoured Transverse Grooves. <i>Lecture Notes in Civil Engineering</i> , 2019, , 483-495.	0.3	0
33	Benchmark on the Aerodynamics of a 5:1 Rectangular Cylinder: Further Experimental and LES Results. <i>ERCOFTAC Series</i> , 2019, , 427-432.	0.1	2
34	Separation delay through contoured transverse grooves on a 2D boat-tailed bluff body: Effects on drag reduction and wake flow features. <i>European Journal of Mechanics, B/Fluids</i> , 2019, 74, 351-362.	1.2	21
35	Steady flow regimes and mixing performance in arrow-shaped micro-mixers. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	30
36	Drag Reduction of Boat-Tailed Bluff Bodies Through Transverse Grooves. <i>ERCOFTAC Series</i> , 2019, , 489-495.	0.1	0

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37	Steady and unsteady regimes in a T-shaped micro-mixer: Synergic experimental and numerical investigation. <i>Chemical Engineering Journal</i> , 2018, 341, 414-431.	6.6	93
38	Impact of uncertainties in outflow boundary conditions on the predictions of hemodynamic simulations of ascending thoracic aortic aneurysms. <i>Computers and Fluids</i> , 2018, 165, 96-115.	1.3	66
39	Effects of the Subgrid-Scale Modeling in the Large-Eddy Simulations of Wind Turbines. <i>ERCOFTAC Series</i> , 2018, , 109-115.	0.1	9
40	Reliability of Large-Eddy Simulations: Benchmarking and Uncertainty Quantification. <i>ERCOFTAC Series</i> , 2018, , 15-23.	0.1	3
41	Development of a BEM-CFD tool for Vertical Axis Wind Turbines based on the Actuator Disk Model. <i>Energy Procedia</i> , 2018, 148, 1010-1017.	1.8	5
42	Flow Separation Control and Drag Reduction for a Two-Dimensional Boat-Tailed Bluff Body Through Transverse Grooves. , 2018, , .		1
43	Validation of Numerical Simulations of Thoracic Aorta Hemodynamics: Comparison with In Vivo Measurements and Stochastic Sensitivity Analysis. <i>Cardiovascular Engineering and Technology</i> , 2018, 9, 688-706.	0.7	54
44	Experimental and Numerical Analyses of Unsteady Flow Regimes and Mixing in a Micro T-Mixer. , 2018, , .		0
45	T-mixer operating with water at different temperatures: Simulation and stability analysis. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	7
46	Uncertainty Quantification in Large-Eddy Simulations of the Flow Around a 5:1 Rectangular Cylinder. <i>ERCOFTAC Series</i> , 2018, , 101-107.	0.1	0
47	Numerical Simulation of Cavitating Flows in Complex Geometries. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2017, , 235-258.	0.3	0
48	Stochastic sensitivity analysis of large-eddy simulation predictions of the flow around a 5:1 rectangular cylinder. <i>European Journal of Mechanics, B/Fluids</i> , 2017, 62, 149-165.	1.2	36
49	Separation control and drag reduction for boat-tailed axisymmetric bodies through contoured transverse grooves. <i>Journal of Fluid Mechanics</i> , 2017, 832, 514-549.	1.4	49
50	Stochastic Sensitivity Analysis of Numerical Simulations of High-Pressure Injectors to Cavitation Modeling Parameters. , 2017, , .		2
51	Large-Eddy Simulations of Two In-Line Turbines in a Wind Tunnel with Different Inflow Conditions. <i>Energies</i> , 2017, 10, 821.	1.6	25
52	Grain size distribution uncertainty quantification in volcanic ash dispersal and deposition from weak plumes. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 538-557.	1.4	7
53	Stochastic analysis of the impact of freestream conditions on the aerodynamics of a rectangular 5:1 cylinder. <i>Computers and Fluids</i> , 2016, 136, 170-192.	1.3	32
54	Effect of geometry modifications on the engulfment in micromixers: Numerical simulations and stability analysis. <i>European Journal of Mechanics, B/Fluids</i> , 2016, 55, 360-366.	1.2	24

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55	UNCERTAINTY QUANTIFICATION IN NUMERICAL SIMULATIONS OF THE FLOW IN THORACIC AORTIC ANEURYSMS. , 2016, , .		16
56	Flow regimes in T-shaped micro-mixers. Computers and Chemical Engineering, 2015, 76, 150-159.	2.0	69
57	Connection between base drag, separating boundary layer characteristics and wake mean recirculation length of an axisymmetric blunt-based body. Journal of Fluids and Structures, 2015, 55, 191-203.	1.5	29
58	Large-eddy simulation of heavy particle dispersion in wall-bounded turbulent flows. AIP Conference Proceedings, 2015, , .	0.3	0
59	Use of multiple local recirculations to increase the efficiency in diffusers. European Journal of Mechanics, B/Fluids, 2015, 50, 27-37.	1.2	19
60	Reliability of LES Simulations in the Context of a Benchmark on the Aerodynamics of a Rectangular 5:1 Cylinder. ERCOFTAC Series, 2015, , 161-167.	0.1	1
61	Particle tracking in LES flow fields: conditional Lagrangian statistics of filtering error. Journal of Turbulence, 2014, 15, 22-33.	0.5	14
62	Control of the turbulent flow in a plane diffuser through optimized contoured cavities. European Journal of Mechanics, B/Fluids, 2014, 48, 254-265.	1.2	20
63	Benchmark on the Aerodynamics of a Rectangular 5:1 Cylinder: An overview after the first four years of activity. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 126, 87-106.	1.7	136
64	Simulation of the flow past a circular cylinder in the supercritical regime by blending RANS and variational-multiscale LES models. Journal of Fluids and Structures, 2014, 47, 114-123.	1.5	31
65	Unsteady asymmetric engulfment regime in a T-mixer. Physics of Fluids, 2014, 26, 074101.	1.6	41
66	Impact of dynamic subgrid-scale modeling in variational multiscale large-eddy simulation of bluff-body flows. Acta Mechanica, 2014, 225, 3309-3323.	1.1	20
67	Epistemic uncertainties in RANS model free coefficients. Computers and Fluids, 2014, 102, 315-335.	1.3	44
68	Implicit time advancing combined with two finite-volume methods in the simulation of morphodynamic flows. Mathematics and Computers in Simulation, 2014, 99, 153-169.	2.4	2
69	Probability Distribution of Intrinsic Filtering Errors in Lagrangian Particle Tracking in LES Flow Fields. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2014, , 149-156.	0.2	0
70	Separation control and efficiency improvement in a 2D diffuser by means of contoured cavities. European Journal of Mechanics, B/Fluids, 2013, 41, 138-149.	1.2	23
71	Investigation of the steady engulfment regime in a three-dimensional T-mixer. Physics of Fluids, 2013, 25, .	1.6	80
72	Intrinsic filtering errors of Lagrangian particle tracking in LES flow fields. Physics of Fluids, 2012, 24, .	1.6	41

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73	Stability analysis and control of the flow in a symmetric channel with a sudden expansion. <i>Physics of Fluids</i> , 2012, 24, .	1.6	43
74	Linearized implicit time advancing and defect correction applied to sediment transport simulations. <i>Computers and Fluids</i> , 2012, 63, 82-104.	1.3	14
75	Quantification of errors in large-eddy simulations of a spatially evolving mixing layer using polynomial chaos. <i>Physics of Fluids</i> , 2012, 24, .	1.6	25
76	Statistical properties of an ideal subgrid-scale correction for Lagrangian particle tracking in turbulent channel flow. <i>Journal of Physics: Conference Series</i> , 2011, 333, 012004.	0.3	0
77	Further generalized energies for the application of an energy criterion of conditional stability. <i>Acta Mechanica</i> , 2011, 218, 357-366.	1.1	3
78	Variational multiscale large-eddy simulations of the flow past a circular cylinder: Reynolds number effects. <i>Computers and Fluids</i> , 2011, 47, 44-50.	1.3	86
79	Inertial particle segregation and deposition in large-eddy simulation of turbulent wall-bounded flows. <i>ERCFTAC Series</i> , 2011, , 191-200.	0.1	1
80	Benchmark test on particle-laden channel flow with point-particle LES. <i>ERCFTAC Series</i> , 2011, , 177-182.	0.1	3
81	Mixed subgrid scale models for classical and variational multiscale large-eddy simulations on unstructured grids. <i>ERCFTAC Series</i> , 2011, , 107-112.	0.1	0
82	Comparison of Explicit and Implicit Time Advancing in the Simulation of a 2D Sediment Transport Problem. <i>Springer Proceedings in Mathematics</i> , 2011, , 125-133.	0.5	0
83	Numerical Simulation of the Flow in a Turbopump Inducer in Non-Cavitating and Cavitating Conditions. <i>Springer Proceedings in Mathematics</i> , 2011, , 135-143.	0.5	0
84	Classical and variational multiscale LES of the flow around a circular cylinder on unstructured grids. <i>Computers and Fluids</i> , 2010, 39, 1083-1094.	1.3	77
85	An implicit low-diffusive HLL scheme with complete time linearization: Application to cavitating barotropic flows. <i>Computers and Fluids</i> , 2010, 39, 1990-2006.	1.3	16
86	Simulation of Bluff-Body Flows Through a Hybrid RANS/VMS-LES Model. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2009, , 429-440.	0.1	1
87	A locally superconvergent scheme for the simulation of turbulent flows in complex geometries. , 2009, , 493-498.		0
88	Appraisal of energy recovering sub-grid scale models for large-eddy simulation of turbulent dispersed flows. <i>Acta Mechanica</i> , 2008, 201, 277-296.	1.1	38
89	A non-linear observer for unsteady three-dimensional flows. <i>Journal of Computational Physics</i> , 2008, 227, 2626-2643.	1.9	14
90	Some issues concerning large-eddy simulation of inertial particle dispersion in turbulent bounded flows. <i>Physics of Fluids</i> , 2008, 20, .	1.6	88

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91	A conditional stability criterion based on generalized energies. <i>Journal of Fluid Mechanics</i> , 2007, 581, 277-286.	1.4	4
92	A parallel multiphase flow code for the 3D simulation of explosive volcanic eruptions. <i>Parallel Computing</i> , 2007, 33, 541-560.	1.3	85
93	An immersed boundary method for compressible multiphase flows: application to the dynamics of pyroclastic density currents. <i>Computational Geosciences</i> , 2007, 11, 183-198.	1.2	18
94	Parallel simulation of three-dimensional complex flows: Application to two-phase compressible flows and turbulent wakes. <i>Advances in Engineering Software</i> , 2007, 38, 328-337.	1.8	9
95	Low-dimensional modelling of a confined three-dimensional wake flow. <i>Journal of Fluid Mechanics</i> , 2006, 569, 141.	1.4	58
96	Large-eddy simulation of the flow around a triangular prism with moderate aspect ratio. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2006, 94, 309-322.	1.7	29
97	A numerical method for 3D barotropic flows in turbomachinery. <i>Flow, Turbulence and Combustion</i> , 2006, 76, 371-381.	1.4	29
98	Mechanisms for deposition and resuspension of heavy particles in turbulent flow over wavy interfaces. <i>Physics of Fluids</i> , 2006, 18, 025102.	1.6	55
99	On the closure of particle motion equations in large-eddy simulation. , 2006, , 311-318.		1
100	Mechanisms for microparticle dispersion in a jet in crossflow. <i>AIChE Journal</i> , 2005, 51, 28-43.	1.8	22
101	Hybrid RANS/LES simulations of a bluff-body flow. <i>Wind and Structures, an International Journal</i> , 2005, 8, 407-426.	0.8	6
102	A low-diffusion MUSCL scheme for LES on unstructured grids. <i>Computers and Fluids</i> , 2004, 33, 1101-1129.	1.3	64
103	Direct numerical simulation of particle wall transfer and deposition in upward turbulent pipe flow. <i>International Journal of Multiphase Flow</i> , 2003, 29, 1017-1038.	1.6	115
104	Validation of a Wall Interference Correction Procedure in Subsonic Flow. <i>Journal of Aircraft</i> , 2003, 40, 803-805.	1.7	0
105	Large eddy simulations of the flow around a circular cylinder: effects of grid resolution and subgrid scale modeling. <i>Wind and Structures, an International Journal</i> , 2003, 6, 419-436.	0.8	15
106	Current-density approximation for efficient computation of the electrostatic field in wire-plate precipitators. <i>IEEE Transactions on Industry Applications</i> , 2002, 38, 858-865.	3.3	7
107	Large-eddy simulation of a bluff-body flow on unstructured grids. <i>International Journal for Numerical Methods in Fluids</i> , 2002, 40, 1431-1460.	0.9	35
108	Drag prediction over steep sinusoidal wavy surfaces. <i>Physics of Fluids</i> , 2001, 13, 2728-2731.	1.6	3

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109	Automatic evaluation of arterial diameter variation from vascular echographic images. <i>Ultrasound in Medicine and Biology</i> , 2001, 27, 1621-1629.	0.7	58
110	Three-dimensional coarse large-eddy simulations of the flow above two-dimensional sinusoidal waves. <i>International Journal for Numerical Methods in Fluids</i> , 2001, 35, 617-642.	0.9	18
111	Approximation and Reconstruction of the Electrostatic Field in Wire-Plate Precipitators by a Low-Order Model. <i>Journal of Computational Physics</i> , 2001, 170, 893-916.	1.9	10
112	Correction of Wall Interference in Wind Tunnels: A Numerical Investigation. <i>Journal of Aircraft</i> , 2001, 38, 944-949.	1.7	9
113	Numerical Evaluation of Airfoil Friction Drag. <i>Journal of Aircraft</i> , 2000, 37, 354-356.	1.7	5
114	Effect of a Splitter Plate on Transonic Wing Flow: A Numerical Study. <i>Journal of Aircraft</i> , 1999, 36, 718-720.	1.7	0
115	Appraisal of Numerical Methods in Predicting the Aerodynamics of Forward-Swept Wings. <i>Journal of Aircraft</i> , 1998, 35, 561-568.	1.7	11
116	Large-eddy simulation of free-surface decaying turbulence with dynamic subgrid-scale models. <i>Physics of Fluids</i> , 1997, 9, 2405-2419.	1.6	43
117	Numerical simulations of transitional axisymmetric coaxial jets. <i>AIAA Journal</i> , 1996, 34, 736-743.	1.5	23
118	A priori tests of a new dynamic subgrid-scale model for finite-difference large-eddy simulations. <i>Physics of Fluids</i> , 1995, 7, 2831-2847.	1.6	193
119	Non-equilibrium external flows including wall-catalysis effects by adaptive upwind finite elements. <i>Russian Physics Journal</i> , 1993, 36, 326-343.	0.2	0