Maria Vittoria Salvetti

List of Publications by Year
in descending order

119 papers	2,696 citations	172457 29 h-index	197818 49 g-index
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.	3.6	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.	5.6	4
3	Mixing Improvement in a T-Shaped Micro-Junction through Small Rectangular Cavities. Micromachines, 2022, 13, 159.	2.9	6
4	Concurrent theoretical, experimental and numerical analyses of mixed-flow turbopump design. Aerospace Science and Technology, 2022, 123, 107459.	4.8	5
5	Flow regimes, mixing and reaction yield of a mixture in an X-microreactor. Chemical Engineering Journal, 2022, 437, 135113.	12.7	8
6	Spanwise-Discontinuous Grooves for Separation Delay and Drag Reduction of Bodies with Vortex Shedding. Fluids, 2022, 7, 121.	1.7	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.	5.6	3
8	Integrating in-vivo Data inÂCFD Simulations andÂin in-vitro Experiments ofÂtheÂHemodynamic inÂHealthy andÂPathologic Thoracic Aorta. Lecture Notes in Computer Science, 2022, , 208-219.	1.3	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, .	4.0	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.	2.9	7
12	Effect of stratification on the mixing and reaction yield in a T-shaped micro-mixer. Physical Review Fluids, 2021, 6, .	2.5	22
13	Turbopump Design: Comparison of Numerical Simulations to an Already Validated Reduced-Order Model. Journal of Physics: Conference Series, 2021, 1909, 012029.	0.4	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.	2.5	16
15	Flow around a 5:1 rectangular cylinder: Effects of upstream-edge rounding. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 204, 104237.	3.9	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.	12.7	29
18	Stochastic calibration of cavitation model parameters for simulations of 3-phase injector internal flows. Computers and Fluids, 2020, 205, 104581.	2.5	5

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19	Numerical investigation of skewed spatially evolving mixing layers. Journal of Fluid Mechanics, 2020, 897, .	3.4	2
20	An Overview of Flow Features and Mixing in Micro T and Arrow Mixers. Industrial & Engineering Chemistry Research, 2020, 59, 3669-3686.	3.7	46
21	A simple model for deep dynamic stall conditions. Wind Energy, 2020, 23, 915-938.	4.2	7
22	Appraisal and calibration of the actuator line model for the prediction of turbulent separated wakes. Wind Energy, 2020, 23, 1231-1248.	4.2	9
23	Comparison Between Numerical and MRI Data of Ascending Aorta Hemodynamics in a Circulatory Mock Loop. Lecture Notes in Mechanical Engineering, 2020, , 898-907.	0.4	5
24	Effects of the Distribution in Space of the Velocity-Inlet Condition in Hemodynamic Simulations of the Thoracic Aorta. Lecture Notes in Computer Science, 2020, , 63-74.	1.3	5
25	Uncertainty Quantification Applied to Hemodynamic Simulations of Thoracic Aorta Aneurysms: Sensitivity to Inlet Conditions. Lecture Notes in Computational Science and Engineering, 2020, , 171-192.	0.3	2
26	Flow Around a 5:1 Rectangular Cylinder: Effects of the Rounding of the Upstream Corners. ERCOFTAC Series, 2020, , 85-90.	0.1	0
27	Effects of Spanwise-Discontinuous Contoured Transverse Grooves on Flow Separation and Vortex Shedding. ERCOFTAC Series, 2020, , 97-102.	0.1	0
28	Unsteady Flow Regimes in a T-Shaped Micromixer: Mixing and Characteristic Frequencies. Industrial & Engineering Chemistry Research, 2019, 58, 13340-13356.	3.7	36
29	A Lagrangian probability-density-function model for collisional turbulent fluidâ€“particle flows. Journal of Fluid Mechanics, 2019, 862, 449-489.	3.4	14
30	Stochastic sensitivity analysis of numerical simulations of injector internal flows to cavitation modeling parameters. Computers and Fluids, 2019, 183, 130-147.	2.5	5
31	Large Eddy Simulation of a Wind Farm Experiment. ERCOFTAC Series, 2019, , 595-601.	0.1	1
32	Flow Separation Delay and Drag Reduction Through Contoured Transverse Grooves. Lecture Notes in Civil Engineering, 2019, , 483-495.	0.4	0
33	Benchmark on the Aerodynamics of a 5:1 Rectangular Cylinder: Further Experimental and LES Results. ERCOFTAC Series, 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. European Journal of Mechanics, B/Fluids, 2019, 74, 351-362.	2.5	21
35	Steady flow regimes and mixing performance in arrow-shaped micro-mixers. Physical Review Fluids, 2019, 4, .	2.5	30
36	Drag Reduction of Boat-Tailed Bluff Bodies Through Transverse Grooves. ERCOFTAC Series, 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. Chemical Engineering Journal, 2018, 341, 414-431.	12.7	93
38	Impact of uncertainties in outflow boundary conditions on the predictions of hemodynamic simulations of ascending thoracic aortic aneurysms. Computers and Fluids, 2018, 165, 96-115.	2.5	66
39	Effects of the Subgrid-Scale Modeling in the Large-Eddy Simulations of Wind Turbines. ERCOFTAC Series, 2018, , 109-115.	0.1	9
40	Reliability of Large-Eddy Simulations: Benchmarking and Uncertainty Quantification. ERCOFTAC Series, 2018, , 15-23.	0.1	3
41	Development of a BEM-CFD tool for Vertical Axis Wind Turbines based on the Actuator Disk Model. Energy Procedia, 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. Cardiovascular Engineering and Technology, 2018, 9, 688-706.	1.6	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. Physical Review Fluids, 2018, 3, .	2.5	7
46	Uncertainty Quantification in Large-Eddy Simulations of the Flow Around a 5:1 Rectangular Cylinder. ERCOFTAC Series, 2018, , 101-107.	0.1	0
47	Numerical Simulation of Cavitating Flows in Complex Geometries. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2017, , 235-258.	0.6	0
48	Stochastic sensitivity analysis of large-eddy simulation predictions of the flow around a 5:1 rectangular cylinder. European Journal of Mechanics, B/Fluids, 2017, 62, 149-165.	2.5	36
49	Separation control and drag reduction for boat-tailed axisymmetric bodies through contoured transverse grooves. Journal of Fluid Mechanics, 2017, 832, 514-549.	3.4	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. Energies, 2017, 10, 821.	3.1	25
52	Grain size distribution uncertainty quantification in volcanic ash dispersal and deposition from weak plumes. Journal of Geophysical Research: Solid Earth, 2016, 121, 538-557.	3.4	7
53	Stochastic analysis of the impact of freestream conditions on the aerodynamics of a rectangular 5:1 cylinder. Computers and Fluids, 2016, 136, 170-192.	2.5	32
54	Effect of geometry modifications on the engulfment in micromixers: Numerical simulations and stability analysis. European Journal of Mechanics, B/Fluids, 2016, 55, 360-366.	2.5	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.	3.8	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.	3.4	29
58	Large-eddy simulation of heavy particle dispersion in wall-bounded turbulent flows. AIP Conference Proceedings, 2015, , .	0.4	0
59	Use of multiple local recirculations to increase the efficiency in diffusers. European Journal of Mechanics, B/Fluids, 2015, 50, 27-37.	2.5	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.	1.4	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.	2.5	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.	3.9	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.	3.4	31
65	Unsteady asymmetric engulfment regime in a T-mixer. Physics of Fluids, 2014, 26, 074101.	4.0	41
66	Impact of dynamic subgrid-scale modeling in variational multiscale large-eddy simulation of bluff-body flows. Acta Mechanica, 2014, 225, 3309-3323.	2.1	20
67	Epistemic uncertainties in RANS model free coefficients. Computers and Fluids, 2014, 102, 315-335.	2.5	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.	4.4	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.	0.3	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.	2.5	23
71	Investigation of the steady engulfment regime in a three-dimensional T-mixer. Physics of Fluids, 2013, 25, .	4.0	80
72	Intrinsic filtering errors of Lagrangian particle tracking in LES flow fields. Physics of Fluids, 2012, 24, .	4.0	41

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73	Stability analysis and control of the flow in a symmetric channel with a sudden expansion. Physics of Fluids, 2012, 24, .	4.0	43
74	Linearized implicit time advancing and defect correction applied to sediment transport simulations. Computers and Fluids, 2012, 63, 82-104.	2.5	14
75	Quantification of errors in large-eddy simulations of a spatially evolving mixing layer using polynomial chaos. Physics of Fluids, 2012, 24, .	4.0	25
76	Statistical properties of an ideal subgrid-scale correction for Lagrangian particle tracking in turbulent channel flow. Journal of Physics: Conference Series, 2011, 333, 012004.	0.4	0
77	Further generalized energies for the application of an energy criterion of conditional stability. Acta Mechanica, 2011, 218, 357-366.	2.1	3
78	Variational multiscale large-eddy simulations of the flow past a circular cylinder: Reynolds number effects. Computers and Fluids, 2011, 47, 44-50.	2.5	86
79	Inertial particle segregation and deposition in large-eddy simulation of turbulent wall-bounded flows. ERCOFTAC Series, 2011, , 191-200.	0.1	1
80	Benchmark test on particle-laden channel flow with point-particle LES. ERCOFTAC Series, 2011, , 177-182.	0.1	3
81	Mixed subgrid scale models for classical and variational multiscale large-eddy simulations on unstructured grids. ERCOFTAC Series, 2011, , 107-112.	0.1	0
82	Comparison of Explicit and Implicit Time Advancing in the Simulation of a 2D Sediment Transport Problem. Springer Proceedings in Mathematics, 2011, , 125-133.	0.5	0
83	Numerical Simulation of the Flow in a Turbopump Inducer in Non-Cavitating and Cavitating Conditions. Springer Proceedings in Mathematics, 2011, , 135-143.	0.5	0
84	Classical and variational multiscale LES of the flow around a circular cylinder on unstructured grids. Computers and Fluids, 2010, 39, 1083-1094.	2.5	77
85	An implicit low-diffusive HLL scheme with complete time linearization: Application to cavitating barotropic flows. Computers and Fluids, 2010, 39, 1990-2006.	2.5	16
86	Simulation of Bluff-Body Flows Through a Hybrid RANS/VMS-LES Model. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 429-440.	0.2	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. Acta Mechanica, 2008, 201, 277-296.	2.1	38
89	A non-linear observer for unsteady three-dimensional flows. Journal of Computational Physics, 2008, 227, 2626-2643.	3.8	14
90	Some issues concerning large-eddy simulation of inertial particle dispersion in turbulent bounded flows. Physics of Fluids, 2008, 20, .	4.0	88

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91	A conditional stability criterion based on generalized energies. Journal of Fluid Mechanics, 2007, 581, 277-286.	3.4	4
92	A parallel multiphase flow code for the 3D simulation of explosive volcanic eruptions. Parallel Computing, 2007, 33, 541-560.	2.1	85
93	An immersed boundary method for compressible multiphase flows: application to the dynamics of pyroclastic density currents. Computational Geosciences, 2007, 11, 183-198.	2.4	18
94	Parallel simulation of three-dimensional complex flows: Application to two-phase compressible flows and turbulent wakes. Advances in Engineering Software, 2007, 38, 328-337.	3.8	9
95	Low-dimensional modelling of a confined three-dimensional wake flow. Journal of Fluid Mechanics, 2006, 569, 141.	3.4	58
96	Large-eddy simulation of the flow around a triangular prism with moderate aspect ratio. Journal of Wind Engineering and Industrial Aerodynamics, 2006, 94, 309-322.	3.9	29
97	A numerical method for 3D barotropic flows in turbomachinery. Flow, Turbulence and Combustion, 2006, 76, 371-381.	2.6	29
98	Mechanisms for deposition and resuspension of heavy particles in turbulent flow over wavy interfaces. Physics of Fluids, 2006, 18, 025102.	4.0	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. AICHE Journal, 2005, 51, 28-43.	3.6	22
101	Hybrid RANS/LES simulations of a bluff-body flow. Wind and Structures, an International Journal, 2005, 8, 407-426.	0.8	6
102	A low-diffusion MUSCL scheme for LES on unstructured grids. Computers and Fluids, 2004, 33, 1101-1129.	2.5	64
103	Direct numerical simulation of particle wall transfer and deposition in upward turbulent pipe flow. International Journal of Multiphase Flow, 2003, 29, 1017-1038.	3.4	115
104	Validation of a Wall Interference Correction Procedure in Subsonic Flow. Journal of Aircraft, 2003, 40, 803-805.	2.4	0
105	Large eddy simulations of the flow around a circular cylinder: effects of grid resolution and subgrid scale modeling. Wind and Structures, an International Journal, 2003, 6, 419-436.	0.8	15
106	Current-density approximation for efficient computation of the electrostatic field in wire-plate precipitators. IEEE Transactions on Industry Applications, 2002, 38, 858-865.	4.9	7
107	Large-eddy simulation of a bluff-body flow on unstructured grids. International Journal for Numerical Methods in Fluids, 2002, 40, 1431-1460.	1.6	35
108	Drag prediction over steep sinusoidal wavy surfaces. Physics of Fluids, 2001, 13, 2728-2731.	4.0	3

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109	Automatic evaluation of arterial diameter variation from vascular echographic images. Ultrasound in Medicine and Biology, 2001, 27, 1621-1629.	1.5	58
110	Three-dimensional coarse large-eddy simulations of the flow above two-dimensional sinusoidal waves. International Journal for Numerical Methods in Fluids, 2001, 35, 617-642.	1.6	18
111	Approximation and Reconstruction of the Electrostatic Field in Wireâ€“Plate Precipitators by a Low-Order Model. Journal of Computational Physics, 2001, 170, 893-916.	3.8	10
112	Correction of Wall Interference in Wind Tunnels: A Numerical Investigation. Journal of Aircraft, 2001, 38, 944-949.	2.4	9
113	Numerical Evaluation of Airfoil Friction Drag. Journal of Aircraft, 2000, 37, 354-356.	2.4	5
114	Effect of a Splitter Plate on Transonic Wing Flow: A Numerical Study. Journal of Aircraft, 1999, 36, 718-720.	2.4	0
115	Appraisal of Numerical Methods in Predicting the Aerodynamics of Forward-Swept Wings. Journal of Aircraft, 1998, 35, 561-568.	2.4	11
116	Large-eddy simulation of free-surface decaying turbulence with dynamic subgrid-scale models. Physics of Fluids, 1997, 9, 2405-2419.	4.0	43
117	Numerical simulations of transitional axisymmetric coaxial jets. AIAA Journal, 1996, 34, 736-743.	2.6	23
118	A priori tests of a new dynamic subgridâ€scale model for finiteâ€difference largeâ€eddy simulations. Physics of Fluids, 1995, 7, 2831-2847.	4.0	193
119	Non-equilibrium external flows including wall-catalysis effects by adaptive upwind finite elements. Russian Physics Journal, 1993, 36, 326-343.	0.4	0