Wolfgang Schröder

List of Publications by Year
in descending order

243 papers	5,782 citations	37 h-index	67 g-index
258 all docs	258 docs citations	258 times ranked	2639 citing authors

#	Article	IF	Citations
1	Acoustic perturbation equations based on flow decomposition via source filtering. Journal of Computational Physics, 2003, 188, 365-398.	1.9	535
2	A comparison of second- and sixth-order methods for large-eddy simulations. Computers and Fluids, 2002, 31, 695-718.	1.3	234
3	An accurate moving boundary formulation in cut-cell methods. Journal of Computational Physics, 2013, 235, 786-809.	1.9	168
4	On the simulation of trailing edge noise with a hybrid LES/APE method. Journal of Sound and Vibration, 2004, 270, 509-524.	2.1	161
5	A strictly conservative Cartesian cut-cell method for compressible viscous flows on adaptive grids. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1038-1052.	3.4	143
6	Investigation of the vortex induced unsteadiness of a separation bubble via time-resolved and scanning PIV measurements. Experiments in Fluids, 2008, 45, 675-691.	1.1	140
7	Large-eddy simulation of low frequency oscillations of the Dean vortices in turbulent pipe bend flows. Physics of Fluids, 2005, 17, 035107.	1.6	128
8	Scanning PIV measurements of a laminar separation bubble. Experiments in Fluids, 2006, 41, 319-326.	1.1	123
9	An adaptive multilevel multigrid formulation for Cartesian hierarchical grid methods. Computers and Fluids, 2008, 37, 1103-1125.	1.3	120
10	The constrained reinitialization equation for level set methods. Journal of Computational Physics, 2010, 229, 1514-1535.	1.9	117
11	Morphometric characterisation of wing feathers of the barn owl Tyto alba pratincola and the pigeon Columba livia. Frontiers in Zoology, 2007, 4, 23.	0.9	110
12	An efficient conservative cut-cell method for rigid bodies interacting with viscous compressible flows. Journal of Computational Physics, 2016, 311, 62-86.	1.9	102
13	Large-eddy simulation of film cooling flows at density gradients. International Journal of Heat and Fluid Flow, 2008, 29, 18-34.	1.1	99
14	Massively parallel grid generation on HPC systems. Computer Methods in Applied Mechanics and Engineering, 2014, 277, 131-153.	3.4	91
15	A large-eddy simulation method for low Mach number flows using preconditioning and multigrid. Computers and Fluids, 2006, 35, 1126-1136.	1.3	85
16	Features of owl wings that promote silent flight. Interface Focus, 2017, 7, 20160078.	1.5	81
17	Orientation statistics and settling velocity of ellipsoids in decaying turbulence. Atmospheric Research, 2014, 142, 45-56.	1.8	77
18	Differential equation based constrained reinitialization for level set methods. Journal of Computational Physics, 2008, 227, 6821-6845.	1.9	76

#	Article	IF	Citations
19	A reformulated synthetic turbulence generation method for a zonal RANS–LES method and its application to zero-pressure gradient boundary layers. International Journal of Heat and Fluid Flow, 2013, 44, 28-40.	1.1	72
20	A lattice-Boltzmann method with hierarchically refined meshes. Computers and Fluids, 2013, 75, 127-139.	1.3	71
21	Numerical investigation of the three-dimensional flow in a human lung model. Journal of Biomechanics, 2008, 41, 2446-2457.	0.9	63
22	Experimental analysis of the flow field over a novel owl based airfoil. Experiments in Fluids, 2009, 46, 975-989.	1.1	62
23	A general one-equation turbulence model for free shear and wall-bounded flows. Flow, Turbulence and Combustion, 2005, 73, 187-215.	1.4	60
24	Investigation of the impact of the geometry on the nose flow. European Journal of Mechanics, B/Fluids, 2006, 25, 471-490.	1.2	60
25	A cut-cell method for sharp moving boundaries in Cartesian grids. Computers and Fluids, 2013, 85, 135-142.	1.3	58
26	On the role of turbulence distortion on leading-edge noise reduction by means of porosity. Journal of Sound and Vibration, 2020, 485, 115561.	2.1	58
27	Large-Eddy Simulation of Shock/Cooling-Film Interaction. AIAA Journal, 2012, 50, 2102-2114.	1.5	55
28	Characterization of Freestream Disturbances in Conventional Hypersonic Wind Tunnels. Journal of Spacecraft and Rockets, 2019, 56, 357-368.	1.3	55
29	Direct particle–fluid simulation of Kolmogorov-length-scale size particles in decaying isotropic turbulence. Journal of Fluid Mechanics, 2017, 819, 188-227.	1.4	52
30	Numerical Simulation of Riblet Controlled Spatial Transition in a Zero-Pressure-Gradient Boundary Layer. Flow, Turbulence and Combustion, 2010, 85, 57-71.	1.4	48
31	A flexible level-set approach for tracking multiple interacting interfaces in embedded boundary methods. Computers and Fluids, 2014, 102, 182-202.	1.3	48
32	Reduced-order analysis of buffet flow of space launchers. Journal of Fluid Mechanics, 2017, 815, 1-25.	1.4	45
33	Dynamic wall-shear stress measurements in turbulent pipe flow using the micro-pillar sensor MPS3. International Journal of Heat and Fluid Flow, 2008, 29, 830-840.	1.1	44
34	Deep recurrent optical flow learning for particle image velocimetry data. Nature Machine Intelligence, 2021, 3, 641-651.	8.3	41
35	Collision rates of small ellipsoids settling in turbulence. Journal of Fluid Mechanics, 2014, 758, 686-701.	1.4	38
36	Cut-cell method based large-eddy simulation of tip-leakage flow. Physics of Fluids, 2015, 27, .	1.6	38

#	Article	IF	Citations
37	Numerical analysis of the impact of permeability on trailing-edge noise. Journal of Sound and Vibration, 2018, 421, 348-376.	2.1	38
38	Turbulence and heat excited noise sources in single and coaxial jets. Journal of Sound and Vibration, 2010, 329, 786-803.	2.1	37
39	Time-resolved stereo PIV measurements of shock–boundary layer interaction on a supercritical airfoil. Experiments in Fluids, 2012, 52, 591-604.	1.1	37
40	Particle-image velocimetry and force measurements of leading-edge serrations on owl-based wing models. Journal of Bionic Engineering, 2014, 11, 423-438.	2.7	37
41	Comparison of two in vivo microscopy techniques to visualize alveolar mechanics. Journal of Clinical Monitoring and Computing, 2009, 23, 323-332.	0.7	36
42	Effects of tip-gap width on the flow field in an axial fan. International Journal of Heat and Fluid Flow, 2016, 61, 466-481.	1.1	36
43	A level-set based adaptive-grid method for premixed combustion. Combustion and Flame, 2011, 158, 1318-1339.	2.8	35
44	Analysis of tip-leakage flow in an axial fan at varying tip-gap sizes and operating conditions. Computers and Fluids, 2019, 183, 107-129.	1.3	35
45	Flat plate drag reduction using plasma-generated streamwise vortices. Journal of Fluid Mechanics, 2021, 918, .	1.4	35
46	Unsteady Transonic Flow over a Transport-Type Swept Wing. AIAA Journal, 2012, 50, 399-415.	1.5	34
47	Fluid mechanics based classification of the respiratory efficiency of several nasal cavities. Computers in Biology and Medicine, 2013, 43, 1833-1852.	3.9	33
48	The Micro-Pillar Shear-Stress Sensor MPS3 for Turbulent Flow. Sensors, 2009, 9, 2222-2251.	2.1	31
49	Drag reduction by spanwise transversal surface waves. Journal of Turbulence, 2010, 11, N22.	0.5	30
50	Turbulent drag reduction by spanwise traveling ribbed surface waves. European Journal of Mechanics, B/Fluids, 2015, 53, 101-112.	1.2	30
51	Wall-shear stress patterns of coherent structures in turbulent duct flow. Journal of Fluid Mechanics, 2009, 633, 147-158.	1.4	29
52	Large-eddy simulation of shock-cooling-film interaction at helium and hydrogen injection. Physics of Fluids, 2013, 25, .	1.6	29
53	Acoustic Perturbation Equations for Reacting Flows to Compute Combustion Noise. International Journal of Aeroacoustics, 2007, 6, 335-355.	0.8	28
54	Surface structure and dimensional effects on the aerodynamics of an owl-based wing model. European Journal of Mechanics, B/Fluids, 2012, 33, 58-73.	1.2	28

#	Article	IF	Citations
55	Numerically determined geometric collision kernels in spatially evolving isotropic turbulence relevant for droplets in clouds. Atmospheric Research, 2013, 127, 8-21.	1.8	28
56	Correlations for inclined prolates based on highly resolved simulations. Journal of Fluid Mechanics, 2020, 901, .	1.4	28
57	Analysis of Lattice-Boltzmann methods for internal flows. Computers and Fluids, 2011, 47, 115-121.	1.3	27
58	A zonal RANSâ€"LES method for compressible flows. Computers and Fluids, 2012, 67, 1-15.	1.3	27
59	On least-order flow representations for aerodynamics and aeroacoustics. Journal of Fluid Mechanics, 2012, 697, 367-398.	1.4	27
60	Dependence of turbulent wall-shear stress on the amplitude of spanwise transversal surface waves. Computers and Fluids, 2015, 119, 261-275.	1.3	27
61	Friction Drag Variation via Spanwise Transversal Surface Waves. Flow, Turbulence and Combustion, 2011, 87, 33-53.	1.4	26
62	Analysis of the unsteady flow in an elastic stenotic vessel. European Journal of Mechanics, B/Fluids, 2012, 35, 102-110.	1.2	26
63	Analysis of pressure perturbation sources on a generic space launcher after-body in supersonic flow using zonal turbulence modeling and dynamic mode decomposition. Physics of Fluids, 2015, 27, .	1.6	26
64	Hydrodynamic instability and shear layer effect on the response of an acoustically excited laminar premixed flame. Combustion and Flame, 2015, 162, 345-367.	2.8	26
65	Analysis of combustion noise of a turbulent premixed slot jet flame. Combustion and Flame, 2017, 175, 292-306.	2.8	26
66	Drag Reduction and Energy Saving by Spanwise Traveling Transversal Surface Waves for Flat Plate Flow. Flow, Turbulence and Combustion, 2020, 105, 125-157.	1.4	26
67	Coupled Airfoil Heave/Pitch Oscillations at Buffet Flow. AIAA Journal, 2013, 51, 1542-1552.	1.5	25
68	Analysis of acoustic and entropy disturbances in a hypersonic wind tunnel. Physics of Fluids, 2016, 28, .	1.6	25
69	Actively Reduced Airfoil Drag by Transversal Surface Waves. Flow, Turbulence and Combustion, 2019, 102, 865-886.	1.4	25
70	Parametric investigation of friction drag reduction in turbulent flow over a flexible wall undergoing spanwise transversal traveling waves. Experiments in Fluids, 2018, 59, 1.	1.1	24
71	Experimental Investigation of Isoenergetic Film-Cooling Flows with Shock Interaction. AIAA Journal, 2019, 57, 3910-3923.	1.5	24
72	Simulation of aerosol particle deposition in the upper human tracheobronchial tract. European Journal of Mechanics, B/Fluids, 2017, 63, 73-89.	1.2	23

#	Article	IF	Citations
73	Investigation of shock–acoustic-wave interaction in transonic flow. Experiments in Fluids, 2018, 59, 1.	1.1	22
74	Zonal Flow Solver (ZFS): a highly efficient multi-physics simulation framework. International Journal of Computational Fluid Dynamics, 2020, 34, 458-485.	0.5	21
75	Analysis of transonic buffet using dynamic mode decomposition. Experiments in Fluids, 2021, 62, 1.	1.1	21
76	Analysis of basic flow regimes in a human airway model by stereo-scanning PIV. Experiments in Fluids, 2013, 54, 1.	1.1	20
77	Hydrodynamic instability and shear layer effects in turbulent premixed combustion. Physics of Fluids, 2016, 28, .	1.6	20
78	Experimental and numerical investigation of transversal traveling surface waves for drag reduction. European Journal of Mechanics, B/Fluids, 2016, 55, 313-323.	1.2	20
79	Analysis of a drag reduced flat plate turbulent boundary layer via uniform momentum zones. Aerospace Science and Technology, 2020, 96, 105552.	2.5	20
80	Drag Reduction Via Spanwise Transversal Surface Waves at High Reynolds Numbers. Flow, Turbulence and Combustion, 2015, 95, 169-190.	1.4	19
81	On the accuracy of Lagrangian point-mass models for heavy non-spherical particles in isotropic turbulence. Fuel, 2017, 201, 2-14.	3.4	19
82	Comparison of scattering behaviour for spherical and non-spherical particles in pulverized coal combustion. International Journal of Thermal Sciences, 2017, 111, 116-128.	2.6	19
83	A Hierarchical Numerical Journey Through the Nasal Cavity: from Nose-Like Models to Real Anatomies. Flow, Turbulence and Combustion, 2019, 102, 89-116.	1.4	19
84	Dynamic load balancing for direct-coupled multiphysics simulations. Computers and Fluids, 2020, 199, 104437.	1.3	19
85	Particle-Image Velocimetry Measurements of Film Cooling in an Adverse Pressure Gradient Flow. Journal of Turbomachinery, 2012, 134, .	0.9	18
86	High-speed PIV measurements of the near-wall flow field over hairy surfaces. Experiments in Fluids, 2013, 54, 1.	1.1	18
87	Experimental investigation of turbulent boundary layers over transversal moving surfaces. CEAS Aeronautical Journal, 2015, 6, 471-484.	0.9	18
88	Nonlinear analysis of an acoustically excited laminar premixed flame. Combustion and Flame, 2016, 163, 337-357.	2.8	18
89	A fully coupled hybrid computational aeroacoustics method on hierarchical Cartesian meshes. Computers and Fluids, 2017, 144, 137-153.	1.3	18
90	Numerical analysis of the impact of variable porosity on trailing-edge noise. Computers and Fluids, 2018, 167, 66-81.	1.3	18

#	Article	IF	Citations
91	Actuation response model from sparse data for wall turbulence drag reduction. Physical Review Fluids, 2020, 5, .	1.0	17
92	Experimental investigation of the transitional bronchial velocity distribution using stereo scanning PIV. Experiments in Fluids, 2012, 52, 709-718.	1.1	16
93	Computational analysis of nozzle geometry variations for subsonic turbulent jets. Computers and Fluids, 2016, 136, 467-484.	1.3	16
94	Measurements of the wall-shear stress distribution in turbulent channel flow using the micro-pillar shear stress sensor MPS3. Experimental Thermal and Fluid Science, 2019, 106, 171-182.	1.5	16
95	High Reynolds number turbulent wind tunnel boundary layer wall-shear stress sensor. Journal of Turbulence, 2009, 10, N14.	0.5	15
96	Embedded LES-to-RANS boundary in zonal simulations. Journal of Turbulence, 2010, 11, N7.	0.5	15
97	Large-Eddy Simulation of the Unsteady Full 3D Rim Seal Flow in a One-Stage Axial-Flow Turbine. Flow, Turbulence and Combustion, 2019, 102, 189-220.	1.4	15
98	In vivo microscopy in a porcine model of acute lung injury. Respiratory Physiology and Neurobiology, 2010, 172, 192-200.	0.7	14
99	Validation of Lagrangian Two-Way Coupled Point-Particle Models in Large-Eddy Simulations. Flow, Turbulence and Combustion, 2018, 101, 317-341.	1.4	14
100	Metric for attractor overlap. Journal of Fluid Mechanics, 2019, 874, 720-755.	1.4	14
101	An efficient numerical method for fully-resolved particle simulations on high-performance computers. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 495-496.	0.2	13
102	An Adaptive Cartesian Mesh Based Method to Simulate Turbulent Flows of Multiple Rotating Surfaces. Flow, Turbulence and Combustion, 2018, 100, 19-38.	1.4	13
103	The decay of isotropic turbulence carrying non-spherical finite-size particles. Journal of Fluid Mechanics, 2019, 875, 520-542.	1.4	13
104	High-speed tomographic PIV measurements in a DISI engine. Experiments in Fluids, 2019, 60, 1.	1.1	13
105	Noise Sources of Lean Premixed Flames. Flow, Turbulence and Combustion, 2019, 103, 773-796.	1.4	13
106	Large-Eddy Simulation of turbulent heat transfer in a multiple-started helically rib-roughened pipe. International Journal of Heat and Mass Transfer, 2020, 154, 119667.	2.5	13
107	Tomographic Particle-Image Velocimetry Analysis of In-Cylinder Flows. SAE International Journal of Engines, 0, 8, 1447-1467.	0.4	12
108	Noise sources of an unconfined and a confined swirl burner. Journal of Sound and Vibration, 2020, 475, 115293.	2.1	12

#	Article	IF	Citations
109	A General Formulation of Boundary Conditions on Cartesian Cut-Cells for Compressible Viscous Flow. , 2009, , .		11
110	Zonal RANS-LES computation of transonic airfoil flow. , 2011, , .		11
111	Numerical Analysis of Flushing-Induced Thermal Cooling Including Debris Transport in Electrical Discharge Machining (EDM). Procedia CIRP, 2017, 58, 116-121.	1.0	11
112	Efficient parallelization for volume-coupled multiphysics simulations on hierarchical Cartesian grids. Computer Methods in Applied Mechanics and Engineering, 2019, 352, 461-487.	3.4	11
113	Numerical Investigation of Roughness Effects on Transition on Spherical Capsules. Journal of Spacecraft and Rockets, 2019, 56, 388-404.	1.3	11
114	Investigation of engine jet/wing-tip vortex interference. Aerospace Science and Technology, 2004, 8, 175-183.	2.5	10
115	A Cartesian cut-cell method for sharp moving boundaries. , 2011, , .		10
116	Analysis of regional compliance in a porcine model of acute lung injury. Respiratory Physiology and Neurobiology, 2012, 184, 16-26.	0.7	10
117	Noise sources in heated coaxial jets. Computers and Fluids, 2013, 78, 24-28.	1.3	10
118	Experimental investigation of the fluid–structure interaction in an elastic 180° curved vessel at laminar oscillating flow. Experiments in Fluids, 2014, 55, 1.	1.1	10
119	Experimental and numerical investigations of the turbulent wake flow of a generic space launcher at $$M_\infty=3$$ M ∞ = 3 and $$M_\infty=6$$ M ∞ = 6. CEAS Space Journal, 2016, 8, 101-116.	1.1	10
120	Influence of spanwise transversal surface wave on coherent structures in turbulent boundary layers. Aerospace Science and Technology, 2019, 86, 387-400.	2.5	10
121	Investigation of Pulsatile flow in the Upper Human Airways. International Journal of Design and Nature and Ecodynamics, 2010, 5, 335-353.	0.3	10
122	Investigation of the deposition behaviour and antibacterial effectivity of allicin aerosols and vapour using a lung model. Experimental and Therapeutic Medicine, 2020, 19, 1541-1549.	0.8	10
123	PIV–LES analysis of channel flow rotating about the streamwise axis. European Journal of Mechanics, B/Fluids, 2009, 28, 677-688.	1.2	9
124	Impact of multi-species gas injection on trailing-edge noise. Computers and Fluids, 2013, 75, 72-85.	1.3	9
125	Reynolds number effects on the fluctuating velocity distribution in wall-bounded shear layers. Measurement Science and Technology, 2017, 28, 015302.	1.4	9
126	Numerical analysis of high speed wind tunnel flow disturbance measurements using stagnation point probes. Journal of Fluid Mechanics, 2017, 833, 247-273.	1.4	9

#	Article	IF	Citations
127	Latticeâ€"Boltzmann simulations for complex geometries on high-performance computers. CEAS Aeronautical Journal, 2020, 11, 745-766.	0.9	9
128	Lower drag and higher lift for turbulent airfoil flow by moving surfaces. International Journal of Heat and Fluid Flow, 2021, 88, 108770.	1.1	9
129	Investigations of Human Nasal Cavity Flows Based on a Lattice-Boltzmann Method. , 2011, , 143-158.		9
130	Numerical Analysis of Sound Sources in High Reynolds Number Single Jets. , 2007, , .		8
131	Time-Resolved Particle Image Velocimetry of Unsteady Shock Wave-Boundary Layer Interaction. AIAA Journal, 2011, 49, 195-204.	1.5	8
132	Impact of transversal traveling surface waves in a non-zero pressure gradient turbulent boundary layer flow. Applied Mathematics and Computation, 2016, 272, 498-507.	1.4	8
133	Numerical Analysis of the Impact of the Interior Nozzle Geometry on Low Mach Number Jet Acoustics. Flow, Turbulence and Combustion, 2017, 98, 417-443.	1.4	8
134	Numerical Investigation of Jet-Wake Interaction for a Dual-Bell Nozzle. Flow, Turbulence and Combustion, 2020, 104, 553-578.	1.4	8
135	Investigation on residual stress induced by multiple EDM discharges. Procedia CIRP, 2021, 102, 482-487.	1.0	8
136	On the Interaction of a Vortex Pair with a Freely Moving Cylinder. , 2010, , .		7
137	Development of a shear stress sensor to analyse the influence of polymers on the turbulent wall shear stress. Journal of Physics Condensed Matter, 2011, 23, 184121.	0.7	7
138	Thermoacoustical noise induced by laminar flame annihilation at varying flame thicknesses. , 2012, , .		7
139	Experimental investigation of the turbulent Schmidt number in supersonic film cooling with shock interaction. Experiments in Fluids, 2020, 61, 1.	1.1	7
140	Lattice-Boltzmann Solutions with Local Grid Refinement for Nasal Cavity Flows. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2013, , 583-590.	0.2	7
141	An effective simulation- and measurement-based workflow for enhanced diagnostics in rhinology. Medical and Biological Engineering and Computing, 2022, 60, 365-391.	1.6	7
142	Investigation of Lorentz forceâ€"induced flow of NaNO3-electrolyte for magnetic fieldâ€"assisted electrochemical machining. International Journal of Advanced Manufacturing Technology, 2022, 121, 937-947.	1.5	7
143	Comparison of the mixing efficiency of different injector configurations. Computers and Fluids, 2015, 117, 262-272.	1.3	6
144	Numerical Investigation of Direct Gas Injection in an Optical Internal Combustion Engine. , 0, , .		6

#	Article	IF	Citations
145	Fundamental Technologies for the Development of Future Space Transportsystem Components under high Thermal and Mechanical Loads. , 2018, , .		6
146	Comparison of Shock/Cooling-Film Interaction for Cooled and Isoenergetic Injection. AIAA Journal, 2020, 58, 2078-2092.	1.5	6
147	Analysis of the Effects of MARME Treatment on Respiratory Flow Using the Lattice-Boltzmann Method. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2020, , 853-863.	0.2	6
148	Detection of small-scale/large-scale interactions in turbulent wall-bounded flows. Physical Review Fluids, 2020, 5, .	1.0	6
149	Reduced-order representation of turbulent jet flow and its noise source. ESAIM: Proceedings and Surveys, 2007, 16, 33-50.	0.4	5
150	Transonic Shock Buffet Interference of an Oscillating High Aspect Ratio Swept Wing. , 2008, , .		5
151	Airframe-Noise Reduction by Suppressing Near-Wall Turbulent Structures. , 2011, , .		5
152	Reformulation of Acoustic Entropy Source Terms. , 2011, , .		5
153	Dissipation element analysis in experimental and numerical shear flow. European Journal of Mechanics, B/Fluids, 2013, 38, 85-92.	1.2	5
154	A numerical method for multiphysics simulations based on hierarchical Cartesian grids. Journal of Fluid Science and Technology, 2015, 10, JFST0002-JFST0002.	0.2	5
155	A direct-hybrid method for computational aeroacoustics. , 2015, , .		5
156	Influence of Miller Cycles on Engine Air Flow. SAE International Journal of Engines, 0, 11, 161-178.	0.4	5
157	Performance of ODROID-MC1 for scientific flow problems. Future Generation Computer Systems, 2019, 95, 149-162.	4.9	5
158	LES of a turbulent swirl flame using a mesh adaptive level-set method with dynamic load balancing. Computers and Fluids, 2021, 221, 104900.	1.3	5
159	Microroughness-induced disturbances in supersonic blunt body flow. Physical Review Fluids, 2020, 5, .	1.0	5
160	Permeability Measurements of 3D Microstructures Generated by Phase Field Simulation of the Solidification of an Al-Si Alloy during Chill Casting. Metals, 2021, 11, 1895.	1.0	5
161	Acoustic Wave Refraction in Open Turbulent Flames. Acta Acustica United With Acustica, 2009, 95, 440-447.	0.8	4
162	Lattice Boltzmann Simulations with Locally Refined Meshes. , 2011, , .		4

#	Article	IF	Citations
163	Analysis of acoustic source terms of a coaxial helium/air jet. , 2011, , .		4
164	Comparison of Source Reconstruction Methods for Hybrid Aeroacoustic Predictions. International Journal of Aeroacoustics, 2013, 12, 639-662.	0.8	4
165	Direct particle–fluid simulation of flushing flow in electrical discharge machining. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 328-343.	1.5	4
166	Drag reduction for swept flat plate flow. Physical Review Fluids, 2020, 5, .	1.0	4
167	Analysis of Cyclic Variation Using Time-Resolved Tomographic Particle-Image Velocimetry. SAE International Journal of Advances and Current Practices in Mobility, 0, 3, 113-136.	2.0	4
168	Large-Eddy Simulation Study of Biofuel Injection in an Optical Direct Injection Engine. , 0, , .		4
169	A machine-learning-based method for automatizing lattice-Boltzmann simulations of respiratory flows. Applied Intelligence, 2022, 52, 9080-9100.	3.3	4
170	Analysis of spatiotemporal inner-outer large-scale interactions in turbulent channel flow by multivariate empirical mode decomposition. Physical Review Fluids, 2022, 7, .	1.0	4
171	Oblique shock-vortex interaction over a wedge. , 2003, , 1156-1159.		3
172	Aeroacoustic Analysis of a Helicopter Engine Jet Including a Realistic Nozzle Geometry. , 2015, , .		3
173	Streamline segment scaling behavior in a turbulent wavy channel flow. Experiments in Fluids, 2017, 58, 1.	1.1	3
174	Space-selective nonlinear reduced-order models for turbulent boundary layer drag reduction. , 2017, , .		3
175	Inclined slow acoustic waves incident to stagnation point probes in supersonic flow. Journal of Fluid Mechanics, 2019, 866, 567-597.	1.4	3
176	Simultaneous Stereo PIV and MPS3 Wall-Shear Stress Measurements in Turbulent Channel Flow. Optics, 2020, 1, 40-51.	0.6	3
177	Particle Reynolds number effects on settling ellipsoids in isotropic turbulence. International Journal of Multiphase Flow, 2021, 139, 103566.	1.6	3
178	Prediction of Acoustic Fields Using a Lattice-Boltzmann Method and Deep Learning. Lecture Notes in Computer Science, 2020, , 81-101.	1.0	3
179	PIV Measurements of Shock/Cooling-Film Interaction at Varying Shock Impingement Position. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2018, , 129-139.	0.2	3
180	Nusselt correlation for ellipsoidal particles. International Journal of Multiphase Flow, 2022, 149, 103941.	1.6	3

#	Article	IF	Citations
181	Turbulent mixing in an accelerated nozzle flow. International Journal of Heat and Fluid Flow, 2010, 31, 342-350.	1.1	2
182	An Adaptive Dual-Mesh Method for Premixed Combustion Using the Level Set Approach. , 2010, , .		2
183	Sound Generation of Variable Density Jets. , 2010, , .		2
184	Numerical Study of Noise Reduction via Wall Turbulence Control. , 2010, , .		2
185	Experimental Investigation of Coupled Heave/Pitch Oscillations in Transonic Flow. , 2011, , .		2
186	CFD/CAA Simulations on HPC Systems. , 2016, , 139-157.		2
187	Large-Scale Simulations of a Non-generic Helicopter Engine Nozzle and a Ducted Axial Fan. , 2016, , 389-405.		2
188	Numerical analysis of the impact of exit conditions on low Mach number turbulent jets. International Journal of Heat and Fluid Flow, 2017, 67, 1-12.	1.1	2
189	Direct particle-fluid simulation of flushing in die-sink electrical-discharge machining. , 2017, , .		2
190	Prediction of Noise Mitigation by Porous Media based on a Direct-Hybrid CFD/CAA Method. , 2019, , .		2
191	Feasibility study of a surface-coated lung model to quantify active agent deposition for preclinical studies. Clinical Biomechanics, 2020, 76, 105029.	0.5	2
192	Structured multi-block grid partitioning using balanced cut trees. Journal of Parallel and Distributed Computing, 2020, 138, 139-152.	2.7	2
193	Impact of non-symmetric confinement on the flame dynamics of a lean-premixed swirl flame. Combustion and Flame, 2022, 235, 111701.	2.8	2
194	Ambient Flow Properties of Kolmogorov-Length-Scale Size Non-Spherical Particles in Isotropic Turbulence. ERCOFTAC Series, 2020, , 175-181.	0.1	2
195	Theoretical and Numerical Analysis of Broadband Combustion Noise. , 2009, , 175-215.		2
196	A Cartesian Cut-Cell Solver for Compressible Flows. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2011, , 363-376.	0.2	2
197	Large-Eddy Simulations of Rim Seal Flow in a One-Stage Axial Turbine. Journal of the Global Power and Propulsion Society, 2020, 4, 309-321.	0.8	2
198	Reduced-order analysis of the acoustic near field of a ducted axial fan. International Journal of Heat and Fluid Flow, 2020, 85, 108657.	1.1	2

#	Article	IF	Citations
199	Analysis of the sound sources of lean premixed methane–air flames. GAMM Mitteilungen, 0, , e202200001.	2.7	2
200	Large-eddy simulation for solid particle transport and deposition in a helically rib-roughened pipe using an Euler-Lagrange approach. Chemical Engineering Science, 2022, 253, 117557.	1.9	2
201	Impact of Porous Media on Boundary Layer Turbulence. Fluids, 2022, 7, 139.	0.8	2
202	Influence of turbulence on the drop growth in warm clouds, PartÂI: comparison of numerically and experimentally determined collision kernels. Meteorologische Zeitschrift, 2014, 23, 397-410.	0.5	1
203	A hierarchical Cartesian method for conjugated heat transfer. , 2014, , .		1
204	Experimental analysis of particle sizes for PIV measurements. Measurement Science and Technology, 2016, 27, 094009.	1.4	1
205	Large-Eddy Simulation of Turbine Rim Seal Flow. , 2018, , .		1
206	Computational analysis of exit conditions on the sound field of turbulent hot jets. Comptes Rendus - Mecanique, 2018, 346, 932-947.	2.1	1
207	Algorithmic differentiation of hyperbolic flow problems. Journal of Computational Physics, 2021, 430, 110110.	1.9	1
208	Interaction of Wing-Tip Vortices and Jets in the Extended Wake. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 105-135.	0.2	1
209	Deflection-based flow field sensors â€" examples and requirements. , 2012, , 393-403.		1
210	Large-Eddy Simulation of Supersonic Film Cooling at Incident Shock-Wave Interaction. , 2013, , 295-310.		1
211	Efficient Coupling of an Eulerian Flow Solver with a Lagrangian Particle Solver for the Investigation of Particle Clustering in Turbulence. , 2013, , 393-404.		1
212	Numerical Analysis of Ethanol and 2-Butanone Direct Injection in an Internal Combustion Engine. , 2021, , 315-329.		1
213	Machine-Learning-Based Control of Perturbed and Heated Channel Flows. Lecture Notes in Computer Science, 2021, , 7-22.	1.0	1
214	Virtual Surgeries of Nasal Cavities Using a Coupled Lattice-Boltzmannâ€"Level-Set Approach. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2022, 5, .	0.3	1
215	A coupled lattice Boltzmann/finite volume method for turbulent gas-liquid bubbly flows. , 0, , .		1
216	Numerical Analysis of Poro-Serrated Trailing-Edge Noise. , 2022, , .		1

#	ARTICLE	IF	CITATIONS
217	Allicin as a Volatile or Nebulisable Antimycotic for the Treatment of Pulmonary Mycoses: In Vitro Studies Using a Lung Flow Test Rig. International Journal of Molecular Sciences, 2022, 23, 6607.	1.8	1
218	Acoustic Refraction Effects in Turbulent Reacting Flows. , 2009, , .		0
219	Drag reduction in a turbulent boundary layer by spanwise transversal surface waves. , 2010, , .		0
220	Impact of Spanwise Oscillation on Trailing-Edge Noise. , 2012, , .		0
221	Application of a Cartesian-Grid Immersed Boundary Method to 3D In-Cylinder Flow. , 2012, , .		0
222	Fluid Mechanics Research at the Institute of Aerodynamics, RWTH Aachen University: From 1912 through 2012. European Journal of Mechanics, B/Fluids, 2013, 40, 2-16.	1.2	0
223	Simulation of a Helicopter Engine Jet Including a Realistic Nozzle Geometry. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 157-165.	0.2	0
224	Investigation of the Effect of a Realistic Nozzle Geometry on the Jet Development. Springer Proceedings in Physics, 2016, , 399-405.	0.1	0
225	Drag reduction via wallâ€normal oscillations in turbulent flat plate boundary layer flow at very high Reynolds number. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 629-630.	0.2	0
226	Optimized simulation of multiscale problems on high-performance computers. Proceedings in Applied Mathematics and Mechanics, 2017, 17, 137-138.	0.2	0
227	Closedâ€loop control of turbulent boundary layers using spanwise traveling surface waves. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800336.	0.2	0
228	Parameter Study of Turbulent Drag Reduction by Spanwise Traveling Transversal Surface Waves. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900178.	0.2	0
229	Drag Reduction of Transversal Surface Waves with Sweep Angle. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900212.	0.2	0
230	Accurate numerical simulation on the structural response of the VEGA payload fairing using modal coupling approach. CEAS Space Journal, 2019, 11, 173-183.	1.1	0
231	Numerical Investigation of a Porous Trailing Edge by a Zonal RANS/LES Simulation. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 666-676.	0.2	0
232	Drag Reduction by Surface Actuation. , 2021, , 295-308.		0
233	Study on Large-Scale Amplitude Modulation of Near-Wall Small-Scale Structures in Turbulent Wall-Bounded Flows. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 68-76.	0.2	0
234	Dynamic Load Balancing for Coupled Simulation Methods. , 2021, , 61-84.		0

#	Article	IF	Citations
235	A Level-Set Based Cartesian Grid Method to Simulate In-Cylinder Flow. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2013, , 481-488.	0.2	0
236	Impact of Forced High Frequency Airfoil Oscillations on the Shock Motion at Transonic Buffet Flows. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2014, , 563-571.	0.2	0
237	Numerical Investigation of the Combined Effects of Gravity and Turbulence on the Motion of Small and Heavy Particles. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2014, , 93-101.	0.2	0
238	Towards Large Multi-scale Particle Simulations with Conjugate Heat Transfer on Heterogeneous Super Computers. , 2015, , 307-319.		0
239	Interaction of Acoustic and Entropy Waves with Shocks. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 811-820.	0.2	0
240	Aeroacoustic Simulations of Ducted Axial Fan and Helicopter Engine Nozzle Flows. , 2016, , 443-460.		0
241	The Direct-Hybrid Method for Computational Aeroacoustics on HPC Systems. Lecture Notes in Computer Science, 2017, , 70-81.	1.0	0
242	Comparison of Two Airfoils for Active Drag Reduction in Turbulent Flow. , 2021, , 281-294.		0
243	Correction to: Machine-Learning-Based Control of Perturbed and Heated Channel Flows. Lecture Notes in Computer Science, 2022, , C2-C2.	1.0	0