

# Wolfgang Schröder

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4058013/publications.pdf>

Version: 2024-02-01

243  
papers

5,782  
citations

94269

37  
h-index

98622

67  
g-index

258  
all docs

258  
docs citations

258  
times ranked

2639  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of non-symmetric confinement on the flame dynamics of a lean-premixed swirl flame. <i>Combustion and Flame</i> , 2022, 235, 111701.	2.8	2
2	A machine-learning-based method for automatizing lattice-Boltzmann simulations of respiratory flows. <i>Applied Intelligence</i> , 2022, 52, 9080-9100.	3.3	4
3	Nusselt correlation for ellipsoidal particles. <i>International Journal of Multiphase Flow</i> , 2022, 149, 103941.	1.6	3
4	Virtual Surgeries of Nasal Cavities Using a Coupled Lattice-Boltzmann-“Level-Set Approach. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2022, 5, .	0.3	1
5	Analysis of spatiotemporal inner-outer large-scale interactions in turbulent channel flow by multivariate empirical mode decomposition. <i>Physical Review Fluids</i> , 2022, 7, .	1.0	4
6	Large-eddy simulation for solid particle transport and deposition in a helically rib-roughened pipe using an Euler-Lagrange approach. <i>Chemical Engineering Science</i> , 2022, 253, 117557.	1.9	2
7	An effective simulation- and measurement-based workflow for enhanced diagnostics in rhinology. <i>Medical and Biological Engineering and Computing</i> , 2022, 60, 365-391.	1.6	7
8	Impact of Porous Media on Boundary Layer Turbulence. <i>Fluids</i> , 2022, 7, 139.	0.8	2
9	Correction to: Machine-Learning-Based Control of Perturbed and Heated Channel Flows. <i>Lecture Notes in Computer Science</i> , 2022, , C2-C2.	1.0	0
10	Investigation of Lorentz force-“induced flow of NaNO <sub>3</sub> -electrolyte for magnetic field-“assisted electrochemical machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 121, 937-947.	1.5	7
11	Numerical Analysis of Poro-Serrated Trailing-Edge Noise. , 2022, , .		1
12	Allicin as a Volatile or Nebulisable Antimycotic for the Treatment of Pulmonary Mycoses: In Vitro Studies Using a Lung Flow Test Rig. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6607.	1.8	1
13	Numerical Investigation of a Porous Trailing Edge by a Zonal RANS/LES Simulation. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2021, , 666-676.	0.2	0
14	Investigation on residual stress induced by multiple EDM discharges. <i>Procedia CIRP</i> , 2021, 102, 482-487.	1.0	8
15	Drag Reduction by Surface Actuation. , 2021, , 295-308.		0
16	Study on Large-Scale Amplitude Modulation of Near-Wall Small-Scale Structures in Turbulent Wall-Bounded Flows. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2021, , 68-76.	0.2	0
17	Analysis of transonic buffet using dynamic mode decomposition. <i>Experiments in Fluids</i> , 2021, 62, 1.	1.1	21
18	Lower drag and higher lift for turbulent airfoil flow by moving surfaces. <i>International Journal of Heat and Fluid Flow</i> , 2021, 88, 108770.	1.1	9

#	ARTICLE	IF	CITATIONS
19	Algorithmic differentiation of hyperbolic flow problems. Journal of Computational Physics, 2021, 430, 110110.	1.9	1
20	Flat plate drag reduction using plasma-generated streamwise vortices. Journal of Fluid Mechanics, 2021, 918, .	1.4	35
21	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
22	Particle Reynolds number effects on settling ellipsoids in isotropic turbulence. International Journal of Multiphase Flow, 2021, 139, 103566.	1.6	3
23	Deep recurrent optical flow learning for particle image velocimetry data. Nature Machine Intelligence, 2021, 3, 641-651.	8.3	41
24	Direct particle-fluid simulation of flushing flow in electrical discharge machining. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 328-343.	1.5	4
25	Dynamic Load Balancing for Coupled Simulation Methods. , 2021, , 61-84.		0
26	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
27	Comparison of Two Airfoils for Active Drag Reduction in Turbulent Flow. , 2021, , 281-294.		0
28	Numerical Analysis of Ethanol and 2-Butanone Direct Injection in an Internal Combustion Engine. , 2021, , 315-329.		1
29	Machine-Learning-Based Control of Perturbed and Heated Channel Flows. Lecture Notes in Computer Science, 2021, , 7-22.	1.0	1
30	Numerical Investigation of Jet-Wake Interaction for a Dual-Bell Nozzle. Flow, Turbulence and Combustion, 2020, 104, 553-578.	1.4	8
31	Dynamic load balancing for direct-coupled multiphysics simulations. Computers and Fluids, 2020, 199, 104437.	1.3	19
32	Analysis of a drag reduced flat plate turbulent boundary layer via uniform momentum zones. Aerospace Science and Technology, 2020, 96, 105552.	2.5	20
33	Correlations for inclined prolates based on highly resolved simulations. Journal of Fluid Mechanics, 2020, 901, .	1.4	28
34	Lattice-Boltzmann simulations for complex geometries on high-performance computers. CEAS Aeronautical Journal, 2020, 11, 745-766.	0.9	9
35	Feasibility study of a surface-coated lung model to quantify active agent deposition for preclinical studies. Clinical Biomechanics, 2020, 76, 105029.	0.5	2
36	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

#	ARTICLE	IF	CITATIONS
37	Noise sources of an unconfined and a confined swirl burner. <i>Journal of Sound and Vibration</i> , 2020, 475, 115293.	2.1	12
38	Experimental investigation of the turbulent Schmidt number in supersonic film cooling with shock interaction. <i>Experiments in Fluids</i> , 2020, 61, 1.	1.1	7
39	On the role of turbulence distortion on leading-edge noise reduction by means of porosity. <i>Journal of Sound and Vibration</i> , 2020, 485, 115561.	2.1	58
40	Simultaneous Stereo PIV and MPS3 Wall-Shear Stress Measurements in Turbulent Channel Flow. <i>Optics</i> , 2020, 1, 40-51.	0.6	3
41	Structured multi-block grid partitioning using balanced cut trees. <i>Journal of Parallel and Distributed Computing</i> , 2020, 138, 139-152.	2.7	2
42	Comparison of Shock/Cooling-Film Interaction for Cooled and Isoenergetic Injection. <i>AIAA Journal</i> , 2020, 58, 2078-2092.	1.5	6
43	Zonal Flow Solver (ZFS): a highly efficient multi-physics simulation framework. <i>International Journal of Computational Fluid Dynamics</i> , 2020, 34, 458-485.	0.5	21
44	Large-Eddy Simulation of turbulent heat transfer in a multiple-started helically rib-roughened pipe. <i>International Journal of Heat and Mass Transfer</i> , 2020, 154, 119667.	2.5	13
45	Analysis of the Effects of MARME Treatment on Respiratory Flow Using the Lattice-Boltzmann Method. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2020, , 853-863.	0.2	6
46	Ambient Flow Properties of Kolmogorov-Length-Scale Size Non-Spherical Particles in Isotropic Turbulence. <i>ERCOFTAC Series</i> , 2020, , 175-181.	0.1	2
47	Prediction of Acoustic Fields Using a Lattice-Boltzmann Method and Deep Learning. <i>Lecture Notes in Computer Science</i> , 2020, , 81-101.	1.0	3
48	Microroughness-induced disturbances in supersonic blunt body flow. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	5
49	Drag reduction for swept flat plate flow. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	4
50	Actuation response model from sparse data for wall turbulence drag reduction. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	17
51	Detection of small-scale/large-scale interactions in turbulent wall-bounded flows. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	6
52	Investigation of the deposition behaviour and antibacterial effectivity of allicin aerosols and vapour using a lung model. <i>Experimental and Therapeutic Medicine</i> , 2020, 19, 1541-1549.	0.8	10
53	Large-Eddy Simulations of Rim Seal Flow in a One-Stage Axial Turbine. <i>Journal of the Global Power and Propulsion Society</i> , 2020, 4, 309-321.	0.8	2
54	Reduced-order analysis of the acoustic near field of a ducted axial fan. <i>International Journal of Heat and Fluid Flow</i> , 2020, 85, 108657.	1.1	2

#	ARTICLE	IF	CITATIONS
55	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
56	Metric for attractor overlap. Journal of Fluid Mechanics, 2019, 874, 720-755.	1.4	14
57	The decay of isotropic turbulence carrying non-spherical finite-size particles. Journal of Fluid Mechanics, 2019, 875, 520-542.	1.4	13
58	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
59	Prediction of Noise Mitigation by Porous Media based on a Direct-Hybrid CFD/CAA Method. , 2019, , .		2
60	High-speed tomographic PIV measurements in a DISI engine. Experiments in Fluids, 2019, 60, 1.	1.1	13
61	Influence of spanwise transversal surface wave on coherent structures in turbulent boundary layers. Aerospace Science and Technology, 2019, 86, 387-400.	2.5	10
62	Noise Sources of Lean Premixed Flames. Flow, Turbulence and Combustion, 2019, 103, 773-796.	1.4	13
63	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
64	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
65	Inclined slow acoustic waves incident to stagnation point probes in supersonic flow. Journal of Fluid Mechanics, 2019, 866, 567-597.	1.4	3
66	Experimental Investigation of Isoenergetic Film-Cooling Flows with Shock Interaction. AIAA Journal, 2019, 57, 3910-3923.	1.5	24
67	Parameter Study of Turbulent Drag Reduction by Spanwise Traveling Transversal Surface Waves. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900178.	0.2	0
68	Drag Reduction of Transversal Surface Waves with Sweep Angle. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900212.	0.2	0
69	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
70	Performance of ODROID-MC1 for scientific flow problems. Future Generation Computer Systems, 2019, 95, 149-162.	4.9	5
71	Actively Reduced Airfoil Drag by Transversal Surface Waves. Flow, Turbulence and Combustion, 2019, 102, 865-886.	1.4	25
72	Characterization of Freestream Disturbances in Conventional Hypersonic Wind Tunnels. Journal of Spacecraft and Rockets, 2019, 56, 357-368.	1.3	55

#	ARTICLE	IF	CITATIONS
73	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
74	Numerical Investigation of Roughness Effects on Transition on Spherical Capsules. Journal of Spacecraft and Rockets, 2019, 56, 388-404.	1.3	11
75	Numerical analysis of the impact of variable porosity on trailing-edge noise. Computers and Fluids, 2018, 167, 66-81.	1.3	18
76	Numerical analysis of the impact of permeability on trailing-edge noise. Journal of Sound and Vibration, 2018, 421, 348-376.	2.1	38
77	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
78	Closed-loop control of turbulent boundary layers using spanwise traveling surface waves. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800336.	0.2	0
79	Large-Eddy Simulation of Turbine Rim Seal Flow. , 2018, , .		1
80	Validation of Lagrangian Two-Way Coupled Point-Particle Models in Large-Eddy Simulations. Flow, Turbulence and Combustion, 2018, 101, 317-341.	1.4	14
81	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
82	Fundamental Technologies for the Development of Future Space Transportsystem Components under high Thermal and Mechanical Loads. , 2018, , .		6
83	Computational analysis of exit conditions on the sound field of turbulent hot jets. Comptes Rendus - Mecanique, 2018, 346, 932-947.	2.1	1
84	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
85	Investigation of shock-acoustic-wave interaction in transonic flow. Experiments in Fluids, 2018, 59, 1.	1.1	22
86	Streamline segment scaling behavior in a turbulent wavy channel flow. Experiments in Fluids, 2017, 58, 1.	1.1	3
87	Simulation of aerosol particle deposition in the upper human tracheobronchial tract. European Journal of Mechanics, B/Fluids, 2017, 63, 73-89.	1.2	23
88	Reduced-order analysis of buffet flow of space launchers. Journal of Fluid Mechanics, 2017, 815, 1-25.	1.4	45
89	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
90	Numerical Analysis of Flushing-Induced Thermal Cooling Including Debris Transport in Electrical Discharge Machining (EDM). Procedia CIRP, 2017, 58, 116-121.	1.0	11

#	ARTICLE	IF	CITATIONS
91	On the accuracy of Lagrangian point-mass models for heavy non-spherical particles in isotropic turbulence. <i>Fuel</i> , 2017, 201, 2-14.	3.4	19
92	A fully coupled hybrid computational aeroacoustics method on hierarchical Cartesian meshes. <i>Computers and Fluids</i> , 2017, 144, 137-153.	1.3	18
93	Reynolds number effects on the fluctuating velocity distribution in wall-bounded shear layers. <i>Measurement Science and Technology</i> , 2017, 28, 015302.	1.4	9
94	Features of owl wings that promote silent flight. <i>Interface Focus</i> , 2017, 7, 20160078.	1.5	81
95	Numerical analysis of the impact of exit conditions on low Mach number turbulent jets. <i>International Journal of Heat and Fluid Flow</i> , 2017, 67, 1-12.	1.1	2
96	Numerical analysis of high speed wind tunnel flow disturbance measurements using stagnation point probes. <i>Journal of Fluid Mechanics</i> , 2017, 833, 247-273.	1.4	9
97	Direct particle-fluid simulation of flushing in die-sink electrical-discharge machining. , 2017, ,		2
98	Comparison of scattering behaviour for spherical and non-spherical particles in pulverized coal combustion. <i>International Journal of Thermal Sciences</i> , 2017, 111, 116-128.	2.6	19
99	Analysis of combustion noise of a turbulent premixed slot jet flame. <i>Combustion and Flame</i> , 2017, 175, 292-306.	2.8	26
100	Numerical Analysis of the Impact of the Interior Nozzle Geometry on Low Mach Number Jet Acoustics. <i>Flow, Turbulence and Combustion</i> , 2017, 98, 417-443.	1.4	8
101	Optimized simulation of multiscale problems on high-performance computers. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2017, 17, 137-138.	0.2	0
102	Space-selective nonlinear reduced-order models for turbulent boundary layer drag reduction. , 2017, ,		3
103	The Direct-Hybrid Method for Computational Aeroacoustics on HPC Systems. <i>Lecture Notes in Computer Science</i> , 2017, , 70-81.	1.0	0
104	Analysis of acoustic and entropy disturbances in a hypersonic wind tunnel. <i>Physics of Fluids</i> , 2016, 28,	1.6	25
105	CFD/CAA Simulations on HPC Systems. , 2016, , 139-157.		2
106	Simulation of a Helicopter Engine Jet Including a Realistic Nozzle Geometry. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2016, , 157-165.	0.2	0
107	Effects of tip-gap width on the flow field in an axial fan. <i>International Journal of Heat and Fluid Flow</i> , 2016, 61, 466-481.	1.1	36
108	Experimental analysis of particle sizes for PIV measurements. <i>Measurement Science and Technology</i> , 2016, 27, 094009.	1.4	1

#	ARTICLE	IF	CITATIONS
109	Investigation of the Effect of a Realistic Nozzle Geometry on the Jet Development. Springer Proceedings in Physics, 2016, , 399-405.	0.1	0
110	Computational analysis of nozzle geometry variations for subsonic turbulent jets. Computers and Fluids, 2016, 136, 467-484.	1.3	16
111	Drag reduction via wall-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
112	Hydrodynamic instability and shear layer effects in turbulent premixed combustion. Physics of Fluids, 2016, 28, .	1.6	20
113	Experimental and numerical investigations of the turbulent wake flow of a generic space launcher at $M_\infty = 3$ and $M_\infty = 6$ . CEAS Space Journal, 2016, 8, 101-116.	1.1	10
114	Large-Scale Simulations of a Non-generic Helicopter Engine Nozzle and a Ducted Axial Fan. , 2016, , 389-405.		2
115	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
116	Nonlinear analysis of an acoustically excited laminar premixed flame. Combustion and Flame, 2016, 163, 337-357.	2.8	18
117	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
118	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
119	Interaction of Acoustic and Entropy Waves with Shocks. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2016, , 811-820.	0.2	0
120	Aeroacoustic Simulations of Ducted Axial Fan and Helicopter Engine Nozzle Flows. , 2016, , 443-460.		0
121	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
122	A numerical method for multiphysics simulations based on hierarchical Cartesian grids. Journal of Fluid Science and Technology, 2015, 10, JFST0002-JFST0002.	0.2	5
123	Comparison of the mixing efficiency of different injector configurations. Computers and Fluids, 2015, 117, 262-272.	1.3	6
124	Turbulent drag reduction by spanwise traveling ribbed surface waves. European Journal of Mechanics, B/Fluids, 2015, 53, 101-112.	1.2	30
125	Dependence of turbulent wall-shear stress on the amplitude of spanwise transversal surface waves. Computers and Fluids, 2015, 119, 261-275.	1.3	27
126	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



#	ARTICLE	IF	CITATIONS
127	Experimental investigation of turbulent boundary layers over transversal moving surfaces. CEAS Aeronautical Journal, 2015, 6, 471-484.	0.9	18
128	Drag Reduction Via Spanwise Transversal Surface Waves at High Reynolds Numbers. Flow, Turbulence and Combustion, 2015, 95, 169-190.	1.4	19
129	Cut-cell method based large-eddy simulation of tip-leakage flow. Physics of Fluids, 2015, 27, .	1.6	38
130	A direct-hybrid method for computational aeroacoustics. , 2015, , .		5
131	Aeroacoustic Analysis of a Helicopter Engine Jet Including a Realistic Nozzle Geometry. , 2015, , .		3
132	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
133	Towards Large Multi-scale Particle Simulations with Conjugate Heat Transfer on Heterogeneous Super Computers. , 2015, , 307-319.		0
134	Influence of turbulence on the drop growth in warm clouds, PartÂ: comparison of numerically and experimentally determined collision kernels. Meteorologische Zeitschrift, 2014, 23, 397-410.	0.5	1
135	A hierarchical Cartesian method for conjugated heat transfer. , 2014, , .		1
136	Collision rates of small ellipsoids settling in turbulence. Journal of Fluid Mechanics, 2014, 758, 686-701.	1.4	38
137	Massively parallel grid generation on HPC systems. Computer Methods in Applied Mechanics and Engineering, 2014, 277, 131-153.	3.4	91
138	A flexible level-set approach for tracking multiple interacting interfaces in embedded boundary methods. Computers and Fluids, 2014, 102, 182-202.	1.3	48
139	Experimental investigation of the fluidâ€structure interaction in an elastic 180Â° curved vessel at laminar oscillating flow. Experiments in Fluids, 2014, 55, 1.	1.1	10
140	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
141	Orientation statistics and settling velocity of ellipsoids in decaying turbulence. Atmospheric Research, 2014, 142, 45-56.	1.8	77
142	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
143	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
144	Coupled Airfoil Heave/Pitch Oscillations at Buffet Flow. AIAA Journal, 2013, 51, 1542-1552.	1.5	25

#	ARTICLE	IF	CITATIONS
145	Analysis of basic flow regimes in a human airway model by stereo-scanning PIV. Experiments in Fluids, 2013, 54, 1.	1.1	20
146	High-speed PIV measurements of the near-wall flow field over hairy surfaces. Experiments in Fluids, 2013, 54, 1.	1.1	18
147	Numerically determined geometric collision kernels in spatially evolving isotropic turbulence relevant for droplets in clouds. Atmospheric Research, 2013, 127, 8-21.	1.8	28
148	Large-eddy simulation of shock-cooling-film interaction at helium and hydrogen injection. Physics of Fluids, 2013, 25, .	1.6	29
149	Dissipation element analysis in experimental and numerical shear flow. European Journal of Mechanics, B/Fluids, 2013, 38, 85-92.	1.2	5
150	An accurate moving boundary formulation in cut-cell methods. Journal of Computational Physics, 2013, 235, 786-809.	1.9	168
151	A lattice-Boltzmann method with hierarchically refined meshes. Computers and Fluids, 2013, 75, 127-139.	1.3	71
152	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
153	Fluid mechanics based classification of the respiratory efficiency of several nasal cavities. Computers in Biology and Medicine, 2013, 43, 1833-1852.	3.9	33
154	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
155	Noise sources in heated coaxial jets. Computers and Fluids, 2013, 78, 24-28.	1.3	10
156	Impact of multi-species gas injection on trailing-edge noise. Computers and Fluids, 2013, 75, 72-85.	1.3	9
157	A cut-cell method for sharp moving boundaries in Cartesian grids. Computers and Fluids, 2013, 85, 135-142.	1.3	58
158	Comparison of Source Reconstruction Methods for Hybrid Aeroacoustic Predictions. International Journal of Aeroacoustics, 2013, 12, 639-662.	0.8	4
159	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
160	Large-Eddy Simulation of Supersonic Film Cooling at Incident Shock-Wave Interaction. , 2013, , 295-310.		1
161	Efficient Coupling of an Eulerian Flow Solver with a Lagrangian Particle Solver for the Investigation of Particle Clustering in Turbulence. , 2013, , 393-404.		1
162	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

#	ARTICLE	IF	CITATIONS
163	Impact of Spanwise Oscillation on Trailing-Edge Noise. , 2012, , .		0
164	Thermoacoustical noise induced by laminar flame annihilation at varying flame thicknesses. , 2012, , .		7
165	Particle-Image Velocimetry Measurements of Film Cooling in an Adverse Pressure Gradient Flow. Journal of Turbomachinery, 2012, 134, .	0.9	18
166	Application of a Cartesian-Grid Immersed Boundary Method to 3D In-Cylinder Flow. , 2012, , .		0
167	Analysis of the unsteady flow in an elastic stenotic vessel. European Journal of Mechanics, B/Fluids, 2012, 35, 102-110.	1.2	26
168	A zonal RANSâ€“LES method for compressible flows. Computers and Fluids, 2012, 67, 1-15.	1.3	27
169	Large-Eddy Simulation of Shock/Cooling-Film Interaction. AIAA Journal, 2012, 50, 2102-2114.	1.5	55
170	Unsteady Transonic Flow over a Transport-Type Swept Wing. AIAA Journal, 2012, 50, 399-415.	1.5	34
171	Analysis of regional compliance in a porcine model of acute lung injury. Respiratory Physiology and Neurobiology, 2012, 184, 16-26.	0.7	10
172	On least-order flow representations for aerodynamics and aeroacoustics. Journal of Fluid Mechanics, 2012, 697, 367-398.	1.4	27
173	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
174	Time-resolved stereo PIV measurements of shockâ€“boundary layer interaction on a supercritical airfoil. Experiments in Fluids, 2012, 52, 591-604.	1.1	37
175	Experimental investigation of the transitional bronchial velocity distribution using stereo scanning PIV. Experiments in Fluids, 2012, 52, 709-718.	1.1	16
176	Deflection-based flow field sensors â€“ examples and requirements. , 2012, , 393-403.		1
177	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
178	Time-Resolved Particle Image Velocimetry of Unsteady Shock Wave-Boundary Layer Interaction. AIAA Journal, 2011, 49, 195-204.	1.5	8
179	Airframe-Noise Reduction by Suppressing Near-Wall Turbulent Structures. , 2011, , .		5
180	Reformulation of Acoustic Entropy Source Terms. , 2011, , .		5

#	ARTICLE	IF	CITATIONS
181	Experimental Investigation of Coupled Heave/Pitch Oscillations in Transonic Flow. , 2011, , .		2
182	A Cartesian cut-cell method for sharp moving boundaries. , 2011, , .		10
183	Lattice Boltzmann Simulations with Locally Refined Meshes. , 2011, , .		4
184	Zonal RANS-LES computation of transonic airfoil flow. , 2011, , .		11
185	Friction Drag Variation via Spanwise Transversal Surface Waves. Flow, Turbulence and Combustion, 2011, 87, 33-53.	1.4	26
186	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
187	A level-set based adaptive-grid method for premixed combustion. Combustion and Flame, 2011, 158, 1318-1339.	2.8	35
188	Analysis of Lattice-Boltzmann methods for internal flows. Computers and Fluids, 2011, 47, 115-121.	1.3	27
189	Analysis of acoustic source terms of a coaxial helium/air jet. , 2011, , .		4
190	A Cartesian Cut-Cell Solver for Compressible Flows. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2011, , 363-376.	0.2	2
191	Investigations of Human Nasal Cavity Flows Based on a Lattice-Boltzmann Method. , 2011, , 143-158.		9
192	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
193	In vivo microscopy in a porcine model of acute lung injury. Respiratory Physiology and Neurobiology, 2010, 172, 192-200.	0.7	14
194	The constrained reinitialization equation for level set methods. Journal of Computational Physics, 2010, 229, 1514-1535.	1.9	117
195	Turbulence and heat excited noise sources in single and coaxial jets. Journal of Sound and Vibration, 2010, 329, 786-803.	2.1	37
196	Turbulent mixing in an accelerated nozzle flow. International Journal of Heat and Fluid Flow, 2010, 31, 342-350.	1.1	2
197	Embedded LES-to-RANS boundary in zonal simulations. Journal of Turbulence, 2010, 11, N7.	0.5	15
198	Drag reduction by spanwise transversal surface waves. Journal of Turbulence, 2010, 11, N22.	0.5	30

#	ARTICLE	IF	CITATIONS
199	An Adaptive Dual-Mesh Method for Premixed Combustion Using the Level Set Approach. , 2010, , .		2
200	Sound Generation of Variable Density Jets. , 2010, , .		2
201	Drag reduction in a turbulent boundary layer by spanwise transversal surface waves. , 2010, , .		0
202	On the Interaction of a Vortex Pair with a Freely Moving Cylinder. , 2010, , .		7
203	Numerical Study of Noise Reduction via Wall Turbulence Control. , 2010, , .		2
204	Investigation of Pulsatile flow in the Upper Human Airways. International Journal of Design and Nature and Ecodynamics, 2010, 5, 335-353.	0.3	10
205	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
206	High Reynolds number turbulent wind tunnel boundary layer wall-shear stress sensor. Journal of Turbulence, 2009, 10, N14.	0.5	15
207	The Micro-Pillar Shear-Stress Sensor MPS3 for Turbulent Flow. Sensors, 2009, 9, 2222-2251.	2.1	31
208	Comparison of two in vivo microscopy techniques to visualize alveolar mechanics. Journal of Clinical Monitoring and Computing, 2009, 23, 323-332.	0.7	36
209	Experimental analysis of the flow field over a novel owl based airfoil. Experiments in Fluids, 2009, 46, 975-989.	1.1	62
210	PIV-LES analysis of channel flow rotating about the streamwise axis. European Journal of Mechanics, B/Fluids, 2009, 28, 677-688.	1.2	9
211	Wall-shear stress patterns of coherent structures in turbulent duct flow. Journal of Fluid Mechanics, 2009, 633, 147-158.	1.4	29
212	Acoustic Refraction Effects in Turbulent Reacting Flows. , 2009, , .		0
213	A General Formulation of Boundary Conditions on Cartesian Cut-Cells for Compressible Viscous Flow. , 2009, , .		11
214	Acoustic Wave Refraction in Open Turbulent Flames. Acta Acustica United With Acustica, 2009, 95, 440-447.	0.8	4
215	Theoretical and Numerical Analysis of Broadband Combustion Noise. , 2009, , 175-215.		2
216	Large-eddy simulation of film cooling flows at density gradients. International Journal of Heat and Fluid Flow, 2008, 29, 18-34.	1.1	99

#	ARTICLE	IF	CITATIONS
217	Investigation of the vortex induced unsteadiness of a separation bubble via time-resolved and scanning PIV measurements. <i>Experiments in Fluids</i> , 2008, 45, 675-691.	1.1	140
218	Numerical investigation of the three-dimensional flow in a human lung model. <i>Journal of Biomechanics</i> , 2008, 41, 2446-2457.	0.9	63
219	Differential equation based constrained reinitialization for level set methods. <i>Journal of Computational Physics</i> , 2008, 227, 6821-6845.	1.9	76
220	An adaptive multilevel multigrid formulation for Cartesian hierarchical grid methods. <i>Computers and Fluids</i> , 2008, 37, 1103-1125.	1.3	120
221	Dynamic wall-shear stress measurements in turbulent pipe flow using the micro-pillar sensor MPS3. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 830-840.	1.1	44
222	Transonic Shock Buffet Interference of an Oscillating High Aspect Ratio Swept Wing. , 2008, , .		5
223	Acoustic Perturbation Equations for Reacting Flows to Compute Combustion Noise. <i>International Journal of Aeroacoustics</i> , 2007, 6, 335-355.	0.8	28
224	Numerical Analysis of Sound Sources in High Reynolds Number Single Jets. , 2007, , .		8
225	Reduced-order representation of turbulent jet flow and its noise source. <i>ESAIM: Proceedings and Surveys</i> , 2007, 16, 33-50.	0.4	5
226	Morphometric characterisation of wing feathers of the barn owl <i>Tyto alba pratincola</i> and the pigeon <i>Columba livia</i> . <i>Frontiers in Zoology</i> , 2007, 4, 23.	0.9	110
227	A large-eddy simulation method for low Mach number flows using preconditioning and multigrid. <i>Computers and Fluids</i> , 2006, 35, 1126-1136.	1.3	85
228	Investigation of the impact of the geometry on the nose flow. <i>European Journal of Mechanics, B/Fluids</i> , 2006, 25, 471-490.	1.2	60
229	Scanning PIV measurements of a laminar separation bubble. <i>Experiments in Fluids</i> , 2006, 41, 319-326.	1.1	123
230	A general one-equation turbulence model for free shear and wall-bounded flows. <i>Flow, Turbulence and Combustion</i> , 2005, 73, 187-215.	1.4	60
231	Large-eddy simulation of low frequency oscillations of the Dean vortices in turbulent pipe bend flows. <i>Physics of Fluids</i> , 2005, 17, 035107.	1.6	128
232	On the simulation of trailing edge noise with a hybrid LES/APE method. <i>Journal of Sound and Vibration</i> , 2004, 270, 509-524.	2.1	161
233	Investigation of engine jet/wing-tip vortex interference. <i>Aerospace Science and Technology</i> , 2004, 8, 175-183.	2.5	10
234	Acoustic perturbation equations based on flow decomposition via source filtering. <i>Journal of Computational Physics</i> , 2003, 188, 365-398.	1.9	535

#	ARTICLE	IF	CITATIONS
235	Oblique shock-vortex interaction over a wedge. , 2003, , 1156-1159.		3
236	A comparison of second- and sixth-order methods for large-eddy simulations. Computers and Fluids, 2002, 31, 695-718.	1.3	234
237	Tomographic Particle-Image Velocimetry Analysis of In-Cylinder Flows. SAE International Journal of Engines, 0, 8, 1447-1467.	0.4	12
238	Influence of Miller Cycles on Engine Air Flow. SAE International Journal of Engines, 0, 11, 161-178.	0.4	5
239	Numerical Investigation of Direct Gas Injection in an Optical Internal Combustion Engine. , 0, , .		6
240	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
241	Large-Eddy Simulation Study of Biofuel Injection in an Optical Direct Injection Engine. , 0, , .		4
242	Analysis of the sound sources of lean premixed methane-air flames. GAMM Mitteilungen, 0, , e202200001.	2.7	2
243	A coupled lattice Boltzmann/finite volume method for turbulent gas-liquid bubbly flows. , 0, , .		1