Tim Colonius

List of Publications by Year
in descending order

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273	14,176	36203	22764
papers	citations	51 h-index	112 g-index

274	274	274	5062
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modal Analysis of Fluid Flows: An Overview. AIAA Journal, 2017, 55, 4013-4041.	1.5	1,020
2	Spectral proper orthogonal decomposition and its relationship to dynamic mode decomposition and resolvent analysis. Journal of Fluid Mechanics, 2018, 847, 821-867.	1.4	720
3	Model reduction for compressible flows using POD and Galerkin projection. Physica D: Nonlinear Phenomena, 2004, 189, 115-129.	1.3	589
4	The immersed boundary method: A projection approach. Journal of Computational Physics, 2007, 225, 2118-2137.	1.9	472
5	Wave Packets and Turbulent Jet Noise. Annual Review of Fluid Mechanics, 2013, 45, 173-195.	10.8	462
6	Computational aeroacoustics: progress on nonlinear problems of sound generation. Progress in Aerospace Sciences, 2004, 40, 345-416.	6.3	435
7	On self-sustained oscillations in two-dimensional compressible flow over rectangular cavities. Journal of Fluid Mechanics, 2002, 455, 315-346.	1.4	412
8	Sound generation in a mixing layer. Journal of Fluid Mechanics, 1997, 330, 375-409.	1.4	355
9	Implementation of WENO schemes in compressible multicomponent flow problems. Journal of Computational Physics, 2006, 219, 715-732.	1.9	343
10	Instability waves in a subsonic round jet detected using a near-field phased microphone array. Journal of Fluid Mechanics, 2006, 565, 197.	1.4	321
11	Three-dimensional flows around low-aspect-ratio flat-plate wings at low Reynolds numbers. Journal of Fluid Mechanics, 2009, 623, 187-207.	1.4	317
12	Boundary conditions for direct computation of aerodynamic sound generation. AIAA Journal, 1993, 31, 1574-1582.	1.5	274
13	Spectral analysis of jet turbulence. Journal of Fluid Mechanics, 2018, 855, 953-982.	1.4	268
14	Numerical Treatment of Polar Coordinate Singularities. Journal of Computational Physics, 2000, 157, 787-795.	1.9	260
15	MODELINGARTIFICIALBOUNDARYCONDITIONS FORCOMPRESSIBLEFLOW. Annual Review of Fluid Mechanics, 2004, 36, 315-345.	10.8	256
16	Numerical simulations of non-spherical bubble collapse. Journal of Fluid Mechanics, 2009, 629, 231-262.	1.4	255
17	Instability wave models for the near-field fluctuations of turbulent jets. Journal of Fluid Mechanics, 2011, 689, 97-128.	1.4	238
18	Guide to Spectral Proper Orthogonal Decomposition. AIAA Journal, 2020, 58, 1023-1033.	1.5	236

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19	A fast immersed boundary method using a nullspace approach and multi-domain far-field boundary conditions. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2131-2146.	3.4	214
20	Wavepackets in the velocity field of turbulent jets. Journal of Fluid Mechanics, 2013, 730, 559-592.	1.4	204
21	Cavitation Bubble Cluster Activity in the Breakage of Kidney Stones by Lithotripter Shockwaves. Journal of Endourology, 2003, 17, 435-446.	1.1	196
22	Three-dimensional instabilities in compressible flow over open cavities. Journal of Fluid Mechanics, 2008, 599, 309-339.	1.4	181
23	Axisymmetric superdirectivity in subsonic jets. Journal of Fluid Mechanics, 2012, 704, 388-420.	1.4	180
24	Importance of the nozzle-exit boundary-layer state in subsonic turbulent jets. Journal of Fluid Mechanics, 2018, 851, 83-124.	1.4	154
25	Finite-volume WENO scheme for viscous compressible multicomponent flows. Journal of Computational Physics, 2014, 274, 95-121.	1.9	152
26	Wavepacket models for supersonic jet noise. Journal of Fluid Mechanics, 2014, 742, 71-95.	1.4	144
27	The scattering of sound waves by a vortex: numerical simulations and analytical solutions. Journal of Fluid Mechanics, 1994, 260, 271-298.	1.4	136
28	Shock-induced collapse of a gas bubble in shockwave lithotripsy. Journal of the Acoustical Society of America, 2008, 124, 2011-2020.	0.5	132
29	Numerical experiments on vortex ring formation. Journal of Fluid Mechanics, 2001, 430, 267-282.	1.4	131
30	Acoustic resonance in the potential core of subsonic jets. Journal of Fluid Mechanics, 2017, 825, 1113-1152.	1.4	125
31	Wavepackets and trapped acoustic modes in a turbulent jet: coherent structure eduction and global stability. Journal of Fluid Mechanics, 2017, 825, 1153-1181.	1.4	108
32	A General Deterministic Treatment of Derivatives in Particle Methods. Journal of Computational Physics, 2002, 180, 686-709.	1.9	102
33	Turbulence and Sound-Field POD Analysis of a Turbulent Jet. International Journal of Aeroacoustics, 2009, 8, 337-354.	0.8	97
34	Linear models for control of cavity flow oscillations. Journal of Fluid Mechanics, 2006, 547, 317.	1.4	96
35	Jetâ€“flap interaction tones. Journal of Fluid Mechanics, 2018, 853, 333-358.	1.4	90
36	Modelling bubble clusters in compressible liquids. Journal of Fluid Mechanics, 2011, 688, 352-389.	1.4	88

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37	Wave-Packet Models for Large-Scale Mixing Noise. International Journal of Aeroacoustics, 2010, 9, 533-557.	0.8	85
38	Numerical simulation of the aerobreakup of a water droplet. Journal of Fluid Mechanics, 2018, 835, 1108-1135.	1.4	81
39	Transition to bluff-body dynamics in the wake of vertical-axis wind turbines. Journal of Fluid Mechanics, 2017, 813, 346-381.	1.4	80
40	Numerical simulations of the early stages of high-speed droplet breakup. Shock Waves, 2015, 25, 399-414.	1.0	76
41	Surging and plunging oscillations of an airfoil at low Reynolds number. Journal of Fluid Mechanics, 2015, 763, 237-253.	1.4	74
42	A Vortex Particle Method for Two-Dimensional Compressible Flow. Journal of Computational Physics, 2002, 179, 371-399.	1.9	72
43	Closed-Loop Control of Lift for Longitudinal Gust Suppression at Low Reynolds Numbers. AIAA Journal, 2011, 49, 1721-1728.	1.5	72
44	Second-mode attenuation and cancellation by porous coatings in a high-speed boundary layer. Journal of Fluid Mechanics, 2013, 726, 312-337.	1.4	71
45	Unsteady effects in dense, high speed, particle laden flows. International Journal of Multiphase Flow, 2014, 61, 1-13.	1.6	69
46	Numerical simulation of shock propagation in a polydisperse bubbly liquid. International Journal of Multiphase Flow, 2011, 37, 596-608.	1.6	67
47	The free compressible viscous vortex. Journal of Fluid Mechanics, 1991, 230, 45-73.	1.4	65
48	Discretely Nonreflecting Boundary Conditions for Linear Hyperbolic Systems. Journal of Computational Physics, 2000, 157, 500-538.	1.9	65
49	A strongly-coupled immersed-boundary formulation for thin elastic structures. Journal of Computational Physics, 2017, 336, 401-411.	1.9	63
50	An overview of simulation, modeling, and active control of flow/acoustic resonance in open cavities. , 2001, , .		60
51	A high-order super-grid-scale absorbing layer and its application to linear hyperbolic systems. Journal of Computational Physics, 2009, 228, 4200-4217.	1.9	59
52	A reduced-order model of diffusive effects on the dynamics of bubbles. Physics of Fluids, 2007, 19, .	1.6	58
53	An assessment of multicomponent flow models and interface capturing schemes for spherical bubble dynamics. Journal of Computational Physics, 2020, 402, 109080.	1.9	52
54	Near-surface dynamics of a gas bubble collapsing above a crevice. Journal of Fluid Mechanics, 2020, 899, .	1.4	52

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55	Global modes and nonlinear analysis of inverted-flag flapping. Journal of Fluid Mechanics, 2018, 857, 312-344.	1.4	51
56	Effect of Tip Vortices in Low-Reynolds-Number Poststall Flow Control. AIAA Journal, 2009, 47, 749-756.	1.5	50
57	Numerical investigation of the flow past a cavity. , 1999, , .		49
58	Lift-up, Kelvinâ€“Helmholtz and Orr mechanisms in turbulent jets. Journal of Fluid Mechanics, 2020, 896, .	1.4	49
59	A fast immersed boundary method for external incompressible viscous flows using lattice Green's functions. Journal of Computational Physics, 2017, 331, 257-279.	1.9	47
60	Acoustic Properties of Porous Coatings for Hypersonic Boundary-Layer Control. AIAA Journal, 2010, 48, 267-274.	1.5	46
61	The impulse response of a high-speed jet forced with localized arc filament plasma actuators. Physics of Fluids, 2012, 24, .	1.6	46
62	Piezoelectric Energy Harvesting in Internal Fluid Flow. Sensors, 2015, 15, 26039-26062.	2.1	45
63	An evaluation of linear instability waves as sources of sound in a supersonic turbulent jet. Physics of Fluids, 2002, 14, 3593-3600.	1.6	43
64	A Cumulative Shear Mechanism for Tissue Damage Initiation in Shock-Wave Lithotripsy. Ultrasound in Medicine and Biology, 2007, 33, 1495-1503.	0.7	43
65	Optimal eddy viscosity for resolvent-based models of coherent structures in turbulent jets. Journal of Fluid Mechanics, 2021, 917, .	1.4	42
66	Numerically Nonreflecting Boundary and Interface Conditions for Compressible Flow and Aeroacoustic Computations. AIAA Journal, 1997, 35, 1126-1133.	1.5	40
67	The leading-edge vortex and quasisteady vortex shedding on an accelerating plate. Physics of Fluids, 2010, 22, .	1.6	40
68	One-way spatial integration of hyperbolic equations. Journal of Computational Physics, 2015, 300, 844-861.	1.9	40
69	High-speed video microscopy and numerical modeling of bubble dynamics near a surface of urinary stone. Journal of the Acoustical Society of America, 2019, 146, 516-531.	0.5	40
70	A numerical investigation of unsteady bubbly cavitating nozzle flows. Physics of Fluids, 2002, 14, 300-311.	1.6	39
71	Coriolis Effect on Dynamic Stall in a Vertical Axis Wind Turbine. AIAA Journal, 2016, 54, 216-226.	1.5	39
72	On the formation and recurrent shedding of ligaments in droplet aerobreakup. Journal of Fluid Mechanics, 2020, 904, .	1.4	39

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73	Supersonic Jet Noise from Round and Chevron Nozzles: Experimental Studies. , 2009, , .		38
74	Numerical Simulation of Flow over an Airfoil with a Cavity. AIAA Journal, 2011, 49, 143-149.	1.5	38
75	Effect of direct bubble-bubble interactions on linear-wave propagation in bubbly liquids. Physical Review E, 2014, 90, 063010.	0.8	38
76	Large eddy simulation for jet noise: the importance of getting the boundary layer right. , 2015, , .		38
77	On the lift-optimal aspect ratio of a revolving wing at low Reynolds number. Journal of the Royal Society Interface, 2018, 15, 20170933.	1.5	38
78	Generalized characteristic relaxation boundary conditions for unsteady compressible flow simulations. Journal of Computational Physics, 2013, 248, 109-126.	1.9	37
79	Shock-induced collapse of a bubble inside a deformable vessel. European Journal of Mechanics, B/Fluids, 2013, 40, 64-74.	1.2	37
80	Bubble cloud dynamics in an ultrasound field. Journal of Fluid Mechanics, 2019, 862, 1105-1134.	1.4	37
81	Shock propagation through a bubbly liquid in a deformable tube. Journal of Fluid Mechanics, 2011, 671, 339-363.	1.4	36
82	A study of linear wavepacket models for subsonic turbulent jets using local eigenmode decomposition of PIV data. European Journal of Mechanics, B/Fluids, 2015, 49, 308-321.	1.2	36
83	POD based models of self-sustained oscillations in the flow past an open cavity. , 2000, , .		35
84	Optimal control of circular cylinder wakes using long control horizons. Physics of Fluids, 2015, 27, .	1.6	35
85	Dynamical models for control of cavity oscillations. , 2001, , .		34
86	POD analysis of sound generation by a turbulent jet. , 2002, , .		34
87	Application of Lighthill's Equation to a Mach 1.92 Turbulent Jet. AIAA Journal, 2000, 38, 368-370.	1.5	33
88	Eulerianâ€“Lagrangian method for simulation of cloud cavitation. Journal of Computational Physics, 2018, 371, 994-1017.	1.9	33
89	Large-eddy simulations of co-annular turbulent jet using a Voronoi-based mesh generation framework. , 2018, , .		33
90	Nonlinear input/output analysis: application to boundary layer transition. Journal of Fluid Mechanics, 2021, 911, .	1.4	33

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91	Improvement of acoustic theory of ultrasonic waves in dilute bubbly liquids. Journal of the Acoustical Society of America, 2009, 126, EL69-EL74.	0.5	32
92	High-frequency wavepackets in turbulent jets. Journal of Fluid Mechanics, 2017, 830, .	1.4	32
93	Numerical Simulations of Heat Transfer in Taylor-Couette Flow. Journal of Heat Transfer, 1998, 120, 65-71.	1.2	31
94	A contact model for normal immersed collisions between a particle and a wall. Journal of Fluid Mechanics, 2012, 691, 123-145.	1.4	31
95	A critical assessment of the parabolized stability equations. Theoretical and Computational Fluid Dynamics, 2019, 33, 359-382.	0.9	31
96	Model-based control of cavity oscillations. II - System identification and analysis. , 2002, , .		30
97	A Super-Grid-Scale Model for Simulating Compressible Flow on Unbounded Domains. Journal of Computational Physics, 2002, 182, 191-212.	1.9	29
98	Control of vortex shedding on two- and three-dimensional aerofoils. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 1525-1539.	1.6	29
99	Comparative study of the dynamics of laser and acoustically generated bubbles in viscoelastic media. Physical Review E, 2019, 99, 043103.	0.8	29
100	Data-assimilated low-order vortex modeling of separated flows. Physical Review Fluids, 2018, 3, .	1.0	29
101	Stochastic and nonlinear forcing of wavepackets in a Mach 0.9 jet. , 2015, , .		28
102	Low-Dimensional Models for Control of Leading-Edge Vortices: Equilibria and Linearized Models. , 2007, , .		27
103	Lift Response of a Stalled Wing to Pulsatile Disturbances. AIAA Journal, 2009, 47, 3031-3037.	1.5	27
104	Acoustic saturation in bubbly cavitating flow adjacent to an oscillating wall. Physics of Fluids, 2000, 12, 2752.	1.6	26
105	Unsteadiness in Flow over a Flat Plate at Angle-of-Attack at Low Reynolds Numbers. , 2007, , .		26
106	A parallel fast multipole method for elliptic difference equations. Journal of Computational Physics, 2014, 278, 76-91.	1.9	26
107	Parabolized stability analysis of jets from serrated nozzles. Journal of Fluid Mechanics, 2016, 789, 36-63.	1.4	26
108	Enhancement of shock-capturing methods via machine learning. Theoretical and Computational Fluid Dynamics, 2020, 34, 483-496.	0.9	25

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109	Inlet conditions for wave packet models in turbulent jets based on eigenmode decomposition of large eddy simulation data. Physics of Fluids, 2013, 25, .	1.6	24
110	A fast lattice Green's function method for solving viscous incompressible flows on unbounded domains. Journal of Computational Physics, 2016, 316, 360-384.	1.9	24
111	Accurate computation of surface stresses and forces with immersed boundary methods. Journal of Computational Physics, 2016, 321, 860-873.	1.9	24
112	Modal decomposition of fluidâ€“structure interaction with application to flag flapping. Journal of Fluids and Structures, 2018, 81, 728-737.	1.5	24
113	Compressible Large-Eddy Simulation of Separation Control on a Wall-Mounted Hump. AIAA Journal, 2010, 48, 1098-1107.	1.5	23
114	Ensemble-Based State Estimator for Aerodynamic Flows. AIAA Journal, 2018, 56, 2568-2578.	1.5	23
115	Energy shielding by cavitation bubble clouds in burst wave lithotripsy. Journal of the Acoustical Society of America, 2018, 144, 2952-2961.	0.5	21
116	Three-Dimensional Instabilities of Compressible Flow over Open Cavities: Direct Solution of hte BiGlobal Eivenvalue Problem. , 2004, , .		20
117	Experimental study of turbulent-jet wave packets and their acoustic efficiency. Physical Review Fluids, 2017, 2, .	1.0	20
118	Instability of Hypersonic Boundary Layer on a Wall with Resonating Micro-Cavities. , 2011, , .		19
119	Flow around a NACA0018 airfoil with a cavity and its dynamical response to acoustic forcing. Experiments in Fluids, 2011, 51, 493-509.	1.1	19
120	Active Control of Noise from Hot Supersonic Jets. AIAA Journal, 2018, 56, 933-948.	1.5	19
121	Ambiguity in mean-flow-based linear analysis. Journal of Fluid Mechanics, 2020, 900, .	1.4	19
122	Unsteady Lift Suppression with a Robust Closed Loop Controller. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 19-30.	0.2	19
123	Direct Numerical Simulations of Three-Dimensional Cavity Flows. , 2007, , .		18
124	Lift Enhancement for Low-Aspect-Ratio Wings with Periodic Excitation. AIAA Journal, 2010, 48, 1785-1790.	1.5	18
125	Large eddy simulation for jet noise: azimuthal decomposition and intermittency of the radiated sound. , 2016, , .		18
126	Progress in Lithotripsy Research. Acoustics Today, 2006, 2, 18.	1.0	17

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127	Statistical equilibrium of bubble oscillations in dilute bubbly flows. Physics of Fluids, 2008, 20, 40902.	1.6	17
128	Spatial stability analysis of subsonic corrugatedÂjets. Journal of Fluid Mechanics, 2019, 876, 766-791.	1.4	17
129	Acoustic cavitation rheometry. Soft Matter, 2021, 17, 2931-2941.	1.2	17
130	Vortex shedding in a two-dimensional diffuser: theory and simulation of separation control by periodic mass injection. Journal of Fluid Mechanics, 2004, 520, 187-213.	1.4	16
131	Unstructured Large Eddy Simulation Technology for Prediction and Control of Jet Noise. , 2010, , .		16
132	On a transitional and turbulent natural convection in spherical shells. International Journal of Heat and Mass Transfer, 2013, 64, 514-525.	2.5	16
133	Decomposition of High Speed Jet Noise: Source Characteristics and Propagation Effects. , 2008, , .		15
134	Stability of Temporally Evolving Supersonic Boundary Layers over Micro-Cavities for Ultrasonic Absorptive Coatings. , 2008, , .		15
135	Unsteady Aerodynamic Forces on Small-Scale Wings: Experiments, Simulations, and Models. , 2008, , .		15
136	Modeling and experimental analysis of acoustic cavitation bubbles for Burst Wave Lithotripsy. Journal of Physics: Conference Series, 2015, 656, 012027.	0.3	15
137	A source term approach for generation of one-way acoustic waves in the Euler and Navierâ€“Stokes equations. Wave Motion, 2017, 75, 36-49.	1.0	15
138	A quantitative comparison of phase-averaged models for bubbly, cavitating flows. International Journal of Multiphase Flow, 2019, 115, 137-143.	1.6	15
139	Eddy viscosity for resolvent-based jet noise models. , 2019, , .		15
140	Quasi-linear gradients for capillary liquid chromatography with mass and tandem mass spectrometry. , 2000, 14, 432-438.		14
141	Inverse-Imaging Method for Detection of a Vortex in a Channel. AIAA Journal, 2003, 41, 1743-1751.	1.5	14
142	Spatial Stability Analysis of Chevron Jet Profiles. , 2007, , .		14
143	Low Reynolds Number Wing Response to an Oscillating Freestream With and Without Feed Forward Control. , 2009, , .		14
144	Simulation and Cryogenic Experiments of Natural Convection for the Titan Montgolfiere. AIAA Journal, 2012, 50, 2483-2491.	1.5	14

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145	A Gaussian moment method and its augmentation via LSTM recurrent neural networks for the statistics of cavitating bubble populations. International Journal of Multiphase Flow, 2020, 127, 103262.	1.6	14
146	One Way Navier-Stokes and resolvent analysis for modeling coherent structures in a supersonic turbulent jet. , 2017, , .		14
147	Resolvent-based modeling of turbulent jet noise. Journal of the Acoustical Society of America, 2021, 150, 2421-2433.	0.5	14
148	Simulation of the effects of cavitation and anatomy in the shock path of model lithotripters. Urological Research, 2010, 38, 505-518.	1.5	13
149	Parabolized stability equation models of large-scale jet mixing noise. Procedia Engineering, 2010, 6, 64-73.	1.2	13
150	Computational Modeling and Experiments of Natural Convection for a Titan Montgolfiere. AIAA Journal, 2010, 48, 1007-1016.	1.5	13
151	Modeling and simulation of a fluttering cantilever in channel flow. Journal of Fluids and Structures, 2019, 89, 174-190.	1.5	13
152	MFC: An open-source high-order multi-component, multi-phase, and multi-scale compressible flow solver. Computer Physics Communications, 2021, 266, 107396.	3.0	13
153	Interaction of Acoustic Disturbances with Micro-Cavities for Ultrasonic Absorptive Coatings. , 2008, , .		12
154	Axisymmetric superdirectivity in subsonic jets. , 2011, , .		11
155	Cavitation in shock wave lithotripsy: the critical role of bubble activity in stone breakage and kidney trauma. , 0, , .		10
156	Parabolized Stability Equation Models for Turbulent Jets and Their Radiated Sound. , 2009, , .		10
157	Alternate Designs of Ultrasonic Absorptive Coatings for Hypersonic Boundary Layer Control. , 2009, , .		10
158	Parabolized stability equation models in turbulent supersonic jets. , 2012, , .		10
159	Super- and multi-directive acoustic radiation by linear global modes of a turbulent jet. , 2016, , .		10
160	Trapped acoustic waves in the potential core of subsonic jets. , 2016, , .		10
161	Scattering of sound waves by a compressible vortex. , 1991, , .		9
162	Closed-Loop Control of Vortex Shedding on a Two-Dimensional Flat-Plate Airfoil at a Low Reynolds Number. , 2008, , .		9

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163	Feedback control of vortex shedding from an inclined flat plate. Theoretical and Computational Fluid Dynamics, 2011, 25, 221-232.	0.9	9
164	Wavepackets in the velocity field of turbulent jets. , 2012, , .		9
165	Acoustic field associated with parabolized stability equation models in turbulent jets. , 2013, , .		9
166	Improved Parabolization of the Euler Equations. , 2013, , .		9
167	A Vortex Sheet/Point Vortex Dynamical Model For Unsteady Separated Flows. , 2016, , .		9
168	A fast multi-resolution lattice Green's function method for elliptic difference equations. Journal of Computational Physics, 2020, 407, 109270.	1.9	9
169	Characterizing viscoelastic materials via ensemble-based data assimilation of bubble collapse observations. Journal of the Mechanics and Physics of Solids, 2021, 152, 104455.	2.3	9
170	Three-Dimensional Linear Stability Analysis of Cavity Flows. , 2007, , .		8
171	Spatial Stability Analysis of Subsonic Jets Modified for Low-Frequency Noise Reduction. AIAA Journal, 2015, 53, 2335-2358.	1.5	8
172	Identification of Jet Instability Waves and Design of a Microphone Array. , 2004, , .		7
173	Closed-Loop Control of Leading Edge Vorticity on a 3D Wing: Simulations and Low-Dimensional Models. , 2008, , .		7
174	Control of Flow Structure on a Semi-Circular Planform Wing. , 2008, , .		7
175	Towards Prediction and Control of Large Scale Turbulent Structure Supersonic Jet Noise. , 2009, , .		7
176	Numerical Simulation of the Sound Radiated by a Turbulent Vortex Ring. International Journal of Aeroacoustics, 2009, 8, 317-336.	0.8	7
177	Parabolized stability equation models for predicting large-scale mixing noise of turbulent round jets. , 2011, , .		7
178	Effects of Actuation Frequency on Flow Control Applied to a Wall-Mounted Hump. AIAA Journal, 2012, 50, 1631-1634.	1.5	7
179	Modeling Dynamic Lift Response to Actuation. , 2016, , .		7
180	Stability of wall-bounded fows using one-way spatial integration of Navier-Stokes equations. , 2017, , .		7

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181	EnKF-based Dynamic Estimation of Separated Flows with a Low-Order Vortex Model. , 2018, , .		7
182	Application of the One-Way Navier-Stokes (OWNS) Equations to Hypersonic Boundary Layers. , 2020, , .		7
183	Flow state estimation in the presence of discretization errors. Journal of Fluid Mechanics, 2020, 890, .	1.4	7
184	An empirical correlation between lift and the properties of leading-edge vortices. Theoretical and Computational Fluid Dynamics, 2021, 35, 437.	0.9	7
185	Dynamics of an inverted cantilever plate at moderate angle of attack. Journal of Fluid Mechanics, 2021, 909, .	1.4	7
186	Large-Eddy Simulation of Separation Control for Compressible Flow Over a Wall-Mounted Hump. , 2008, , .		6
187	Optimized Control of Vortex Shedding From an Inclined Flat Plate. , 2009, , .		6
188	Numerical Simulations of the Transient Flow Response of a 3D, Low-Aspect-Ratio Wing to Pulsed Actuation. , 2011, , .		6
189	Dynamics and Energy Extraction of a Surging and Plunging Airfoil at Low Reynolds Number. , 2013, , .		6
190	Tonal dynamics and sound in subsonic turbulent jets. , 2016, , .		6
191	Response of the Separated Flow over an Airfoil to a Short-Time Actuator Burst. , 2017, , .		6
192	QBMMlib: A library of quadrature-based moment methods. SoftwareX, 2020, 12, 100615.	1.2	6
193	Continued development of the one-way Euler equations: application to jets. , 2014, , .		6
194	Assessment of Linear Methods for Analysis of Boundary Layer Instabilities on a Finned Cone at Mach 6. , 2022, , .		6
195	Inverse Technique for Vortex Imaging and Its Application to Feedback Flow Control. , 2003, , .		5
196	Hermite Methods for Aeroacoustics: Recent Progress. , 2011, , .		5
197	Special issue on global flow instability and control. Theoretical and Computational Fluid Dynamics, 2011, 25, 1-6.	0.9	5
198	Experimental observations and numerical modeling of lipid-shell microbubbles with calcium-adhering moieties for minimally-invasive treatment of urinary stones. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	5

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199	Role of Coherent Structures in Turbulent Premixed Flame Acoustics. AIAA Journal, 2020, 58, 2635-2642.	1.5	5
200	Amplitude Scaling of Wave Packets in Turbulent Jets. AIAA Journal, 2021, 59, 559-568.	1.5	5
201	Input/Output Analysis of Hypersonic Boundary Layers using the One-Way Navier-Stokes (OWNS) Equations. , 2021, , .		5
202	A Reduced-Order Model of Heat Transfer Effects on the Dynamics of Bubbles. , 2002, , .		5
203	Numerically nonreflecting boundary and interface conditions. , 1996, , .		4
204	Transition of Chaotic Flow in a Radially Heated Taylor-Couette System. Journal of Heat Transfer, 1999, 121, 574-582.	1.2	4
205	Numerical Investigation of Bubble Cloud Dynamics in Shock Wave Lithotripsy. , 2002, , 389.		4
206	Fluid flow nozzle energy harvesters. , 2015, , .		4
207	Sensitivity of wavepackets in jets to non-linear effects: the role of the critical layer. , 2015, , .		4
208	Resolvent-based jet noise models: a projection approach. , 2020, , .		4
209	Optimized Waveforms for Feedback Control of Vortex Shedding. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 391-404.	0.2	4
210	Simulation of humpback whale bubble-net feeding models. Journal of the Acoustical Society of America, 2020, 147, 1126-1135.	0.5	4
211	Hybrid quadrature moment method for accurate and stable representation of non-Gaussian processes applied to bubble dynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	1.6	4
212	Numerical Simulation of Sound Radiated from a Turbulent Vortex Ring. , 2004, , .		3
213	Linear Stability Analysis of Chevron Jet Profiles. , 2006, , 497.		3
214	Feedback Control of High-Lift State for A Low-Aspect-Ratio Wing. , 2010, , .		3
215	Numerical Simulations of Natural and Actuated Flow over a 3-D, Low-Aspect-Ratio Airfoil. , 2010, , .		3
216	Effects of Target Compliance on a High-Speed Droplet Impact. Solid State Phenomena, 2012, 187, 137-140.	0.3	3

#	Article	IF	Citations
217	Wavepacket intermittency and its role in turbulent jet noise. , 2017, , .		3
218	A Bias-aware EnKF Estimator for Aerodynamic Flows. , 2018, , .		3
219	Streaks and coherent structures in jets from round and serrated nozzles. , 2019, , .		3
220	Flutter instability in an internal flow energy harvester. Journal of Fluid Mechanics, 2021, 915, .	1.4	3
221	Lock-On to a High-Lift State with Oscillatory Forcing in a Three-Dimensional Wake Flow. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 81-93.	0.2	3
222	Introduction to the special issue on supersonic jet noise. Journal of the Acoustical Society of America, 2022, 151, 806-816.	0.5	3
223	Improving Burst Wave Lithotripsy Effectiveness for Small Stones and Fragments by Increasing Frequency: Theoretical Modeling and Ex Vivo Study. Journal of Endourology, 2022, 36, 996-1003.	1.1	3
224	Numerically nonreflecting boundary conditions for multidimensional aeroacoustic computations. , 1998, , .		2
225	A dilating vortex particle method for compressible flow. Journal of Turbulence, 2002, 3, N36.	0.5	2
226	On the Noise Generated by Shear-Layer Instabilities in Turbulent Jets. , 2003, , .		2
227	Computational Modeling and Experiments of Natural Convection for a Titan Montgolfiere. , 2009, , .		2
228	An Integrated RANS-PSE-Wave Packet Tool for the Prediction of Subsonic and Supersonic Jet Noise. , 2010, , .		2
229	Wavepacket eduction in turbulent jets based on eigenmode decomposition of PIV data. , 2013, , .		2
230	Flow energy piezoelectric bimorph nozzle harvester. , 2014, , .		2
231	Linear Stability Implications of Mean Flow Variations in Turbulent Jets Issuing from Serrated Nozzles. , 2015, , .		2
232	Design and experimental evaluation of flextensional-cantilever based piezoelectric transducers for flow energy harvesting. Proceedings of SPIE, 2016, , .	0.8	2
233	Numerical Investigation of Self-Starting Capability of Vertical-Axis Wind Turbines at Low Reynolds Numbers. , 2016, , .		2
234	High-frequency wavepackets in turbulent jets. , 2016, , .		2

#	Article	IF	Citations
235	An EnKF-based Flow State Estimator for Aerodynamic Flows. , 2017, , .		2
236	Modeling and numerical simulation of the bubble cloud dynamics in an ultrasound field for burst wave lithotripsy. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	2
237	Dynamics and decay of a spherical region of turbulence in free space. Journal of Fluid Mechanics, 2021, 907, .	1.4	2
238	Nonlinear dynamics of forced wavepackets in turbulent jets. , 2021, , .		2
239	Evaluation of PSE as a Model for Supersonic Jet Using Transfer Functions. , 2017, , .		2
240	Real-time supersonic jet noise predictions from near-field sensors with a wavepacket model. Journal of the Acoustical Society of America, 2021, 150, 4297-4307.	0.5	2
241	Direct computation of the sound generated by two-dimensional shear layer. , 1993, , .		1
242	Large Eddy Simulation of the Compressible Flow Over an Open Cavity. , 2002, , 1173.		1
243	Closed-loop Control of Vortex Shedding in a Separated Diffuser Using an Inverse Method. , 2004, , .		1
244	Control of a Semi-Circular Planform Wing in a "Gusting" Unsteady Freestream Flow: I-Experimental Issues. , 2008, , .		1
245	Erratum on Effect of Tip Vortices in Low-Reynolds-Number Poststall Flow Control. AIAA Journal, 2010, 48, 702-702.	1.5	1
246	Closed Loop Control of a Wing's Lift for 'Gust' Suppression. , 2010, , .		1
247	Reply by the Authors to G. E. Dorrington. AIAA Journal, 2011, 49, 877-878.	1.5	1
248	Numerical and Experimental Modeling of Natural Convection for a Cryogenic Prototype of a Titan Montgolfiere. , 2011, , .		1
249	Toward Active Control of Noise from Hot Supersonic Jets. , 2013, , .		1
250	Coriolis Effect on Dynamic Stall in a Vertical Axis Wind Turbine at Moderate Reynolds Number. , 2014, , .		1
251	Leading Edge Vortex Development on Pitching and Surging Airfoils: A Study of Vertical Axis Wind Turbines. Springer Proceedings in Physics, 2016, , 581-587.	0.1	1
252	Immersed Boundary Lattice Green Function methods for External Aerodynamics. , 2017, , .		1

#	Article	IF	Citations
253	Amplitude scaling of turbulent-jet wavepackets. , 2018, , .		1
254	Analysis of forced subsonic jets using spectral proper orthogonal decomposition and resolvent analysis. , 2021, , .		1
255	An Analysis of Dispersion and Dissipation Properties of Hermite Methods and its Application to Direct Numerical Simulation of Jet Noise. , 2012, , .		1
256	Non-Spherical Collapse of an Air Bubble Subjected to a Lithotripter Pulse. , 2007, , .		1
257	Shock Propagation in Polydisperse Bubbly Liquids. , 2013, , 141-175.		1
258	Multi-resolution lattice Green's function method for incompressible flows. Journal of Computational Physics, 2022, , 110845.	1.9	1
259	Particle-Assisted Laser-Induced Inertial Cavitation for High Strain-Rate Soft Material Characterization. Experimental Mechanics, 2022, 62, 1037-1050.	1.1	1
260	On the Effect of Tip Vortices in Low-Reynolds-Number Post-Stall Flow Control. , 2009, , .		0
261	Reprint of: Development of Arbitrary-Order Hermite Methods for Simulation and Analysis of Turbulent Jet Noise. Procedia IUTAM, 2010, 1, 19-27.	1.2	0
262	Development of arbitrary-order hermite methods for simulation and analysis of turbulent jet noise. Procedia Engineering, 2010, 6, 19-27.	1.2	0
263	Reprint of: Parabolized stability equation models of large-scale jet mixing noise. Procedia IUTAM, 2010, 1, 64-73.	1.2	0
264	A projection method for multiphase flows. , 2011, , .		0
265	Low-speed jet dynamics and sound radiation. , 2012, , .		0
266	Special issue on global flow instability and control. Theoretical and Computational Fluid Dynamics, 2017, 31, 471-474.	0.9	0
267	Resolvent-based analysis of streaks in turbulent jets. , 2019, , .		0
268	On the role of nonlinearity in Mach wave radiation in a Mach = 1.92 jet. , 2001, , .		0
269	Simulation and Modeling of Turbulent Jet Noise. ERCOFTAC Series, 2015, , 305-310.	0.1	0
270	The Effects of Shock Strength on Droplet Breakup. , 2015, , 1535-1540.		0

#	Article	IF	Citations
271	Parabolized Stability Analysis of Jets Issuing from Serrated Nozzles. Lecture Notes in Mechanical Engineering, 2016, , 211-215.	0.3	0
272	Immersed Boundary Projection Methods. Computational Methods in Engineering & the Sciences, 2020, , 3-43.	0.3	0
273	Input/output analysis of a Mach-6 cooled-wall hypersonic boundary layer using the One-Way Navier-Stokes (OWNS) Equations. , 2022, , .		0