Daniel J Bodony

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80 1,356 18 35 g-index

104 1,697 3.1 5.06 ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
80	Current Status of Jet Noise Predictions Using Large-Eddy Simulation. <i>AIAA Journal</i> , 2008 , 46, 364-380	2.1	186
79	On using large-eddy simulation for the prediction of noise from cold and heated turbulent jets. <i>Physics of Fluids</i> , 2005 , 17, 085103	4.4	169
78	Analysis of sponge zones for computational fluid mechanics. <i>Journal of Computational Physics</i> , 2006 , 212, 681-702	4.1	143
77	Numerical investigation and modelling of acoustically excited flow through a circular orifice backed by a hexagonal cavity. <i>Journal of Fluid Mechanics</i> , 2012 , 693, 367-401	3.7	56
76	Numerical investigation of a honeycomb liner grazed by laminar and turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2016 , 792, 936-980	3.7	50
75	Radiation of noise in turbulent non-premixed flames. <i>Proceedings of the Combustion Institute</i> , 2009 , 32, 1545-1553	5.9	49
74	Numerical Simulation of Two-Dimensional Acoustic Liners with High-Speed Grazing Flow. <i>AIAA Journal</i> , 2011 , 49, 365-382	2.1	48
73	Accuracy of the Simultaneous-Approximation-Term Boundary Condition for Time-Dependent Problems. <i>Journal of Scientific Computing</i> , 2010 , 43, 118-133	2.3	46
72	Interaction of a Mach 2.25 turbulent boundary layer with a fluttering panel using direct numerical simulation. <i>Physics of Fluids</i> , 2013 , 25, 110806	4.4	38
71	Review of the current status of jet noise predictions using large-eddy simulation (invited) 2006,		35
70	Low-frequency sound sources in high-speed turbulent jets. <i>Journal of Fluid Mechanics</i> , 2008 , 617, 231-2	!5 3 .7	34
69	Adjoint-based control of loud events in a turbulent jet. <i>Journal of Fluid Mechanics</i> , 2014 , 741, 28-59	3.7	30
68	Fluid-Thermal Response of Spherical Dome Under a Mach 6.59 Laminar Boundary Layer. <i>AIAA Journal</i> , 2012 , 50, 2791-2808	2.1	30
67	Jet Noise Prediction of Cold and Hot Subsonic Jets Using Large-eddy Simulation 2004,		29
66	Evaluation of actuator disk theory for predicting indirect combustion noise. <i>Journal of Sound and Vibration</i> , 2013 , 332, 821-838	3.9	26
65	Wave propagation in gaseous small-scale channel flows. Shock Waves, 2011, 21, 547-557	1.6	22
64	Provably stable overset grid methods for computational aeroacoustics. <i>Journal of Sound and Vibration</i> , 2011 , 330, 4161-4179	3.9	21

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63	A practical discrete-adjoint method for high-fidelity compressible turbulence simulations. <i>Journal of Computational Physics</i> , 2015 , 285, 173-192	4.1	19	
62	LES Investigation of a Mach 1.3 Jet With and Without Plasma Actuators 2009 ,		16	
61	Determination of the wingsnap sonation mechanism of the golden-collared manakin (Manacus vitellinus). <i>Journal of Experimental Biology</i> , 2016 , 219, 1524-34	3	15	
60	Hypersonic Fluid B tructure Interactions in Compression Corner Shock-Wave/Boundary-Layer Interaction. <i>AIAA Journal</i> , 2020 , 58, 4090-4105	2.1	15	
59	Numerical Investigation of the Acoustic Behavior of a Multi-Perforated Liner 2007,		14	
58	Spatial Scale Decomposition of Shear Layer Turbulence and the Sound Sources Associated with the Missing Scales in a Large-Eddy Simulation 2002 ,		14	
57	Coupled Structural-Acoustic Response of a Duct-Mounted Elastic Plate with Grazing Flow. <i>AIAA Journal</i> , 2014 , 52, 178-194	2.1	13	
56	Energy stable numerical methods for hyperbolic partial differential equations using overlapping domain decomposition. <i>Journal of Computational Physics</i> , 2012 , 231, 5243-5265	4.1	13	
55	Scattering of an entropy disturbance into sound by a symmetric thin body. <i>Physics of Fluids</i> , 2009 , 21, 096101	4.4	13	
54	Investigating Broadband Shock-Associated Noise of Axisymmetric Jets Using Large-Eddy Simulation 2006 ,		13	
53	Noise Radiation Predictions from Jet Instability Waves Using a Hybrid Nonlinear PSE-Acoustic Analogy Approach 2007 ,		11	
52	Time-stable overset grid method for hyperbolic problems using summation-by-parts operators. Journal of Computational Physics, 2018 , 361, 199-230	4.1	10	
51	Generation of Low Frequency Sound in Turbulent Jets 2005,		9	
50	Unsteady Surface and Flowfield Measurements in Ramp-Induced Turbulent and Transitional Shock-Wave Boundary-Layer Interactions at Mach 6 2019 ,		8	
49	Machine learning-assisted early ignition prediction in a complex flow. <i>Combustion and Flame</i> , 2019 , 206, 451-466	5.3	8	
48	A High-Order, Overset-Mesh Algorithm for Adjoint-Based Optimization for Aeroacoustics Control 2010 ,		8	
47	Aeroacoustic predictions in complex geometries. <i>Procedia Engineering</i> , 2010 , 6, 234-243		8	
46	A Statistical Subgrid Scale Noise Model: Formulation 2003 ,		8	

45	Development and Validation of a First Principles Fluid-Thermal Multi-Physics Solver for Hypersonic Boundary Layer Heat Transfer Problems 2011 ,		7
44	Numerical Modeling of Plasma Actuators in High Speed Jets 2009 ,		7
43	Prediction of Combustion-Generated Noise in Non-Premixed Turbulent Jet Flames Using LES 2006,		7
42	A Toolkit for Parallel Overset Grid Assembly Targeting Large-Scale Moving Body Aerodynamic Simulations 2010 , 385-401		7
41	Improving the memory access locality of hybrid MPI applications 2017,		6
40	Effect of Large-Eddy Simulation Fidelity on Predicted Mechanisms of Jet Noise Reduction. <i>Journal of Propulsion and Power</i> , 2012 , 28, 259-268	1.8	6
39	Actuator selection and placement for localized feedback flow control. <i>Journal of Fluid Mechanics</i> , 2016 , 809, 775-792	3.7	6
38	Adjoint-based sensitivity analysis of ignition in a turbulent reactive shear layer 2017,		5
37	Impedance Predictions of 3D Honeycomb Liner with Circular Apertures by DNS 2011,		5
36	A Collision Detection Approach To Chimera Grid Assembly for High Fidelity Simulations of Turbofan Noise 2010 ,		5
35	Reduced-order control using low-rank dynamic mode decomposition. <i>Theoretical and Computational Fluid Dynamics</i> , 2019 , 33, 603-623	2.3	4
34	Direct Numerical Simulation of Three-Dimensional Honeycomb Liners with Turbulent Boundary Layer 2012 ,		4
33	Impedance Prediction of Three-Dimensional Honeycomb Liners with Laminar/Turbulent Boundary Layers using DNS 2013 ,		4
32	Aeroelastic response of a panel under high speed turbulent boundary layers using direct numerical simulation 2013 ,		4
31	Direct Numerical Simulation of Three Dimensional Honeycomb Liner with Circular Apertures 2011 ,		4
30	Heating Effects on the Structure of Noise Sources of High-Speed Jets 2009 ,		4
29	Reprint of:Aeroacoustic predictions in complex geometries. <i>Procedia IUTAM</i> , 2010 , 1, 234-243		4
28	Direct Simulation of FluidBtructure Interaction in a Hypersonic Compression-Ramp Flow. <i>AIAA Journal</i> , 2020 , 58, 4848-4865	2.1	4

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27	Acoustic receptivity simulations of flow past a flat plate with elliptic leading edge. <i>Journal of Fluid Mechanics</i> , 2016 , 800,	3.7	4
26	Adjoint-based sensitivity analysis of localized ignition in a non-premixed hydrogen-air mixing layer 2016 ,		3
25	Adjoint-based sensitivity and ignition threshold mapping in a turbulent mixing layer. <i>Combustion Theory and Modelling</i> , 2019 , 23, 147-179	1.5	3
24	Low-Rank Dynamic Mode Decomposition using Riemannian Manifold Optimization 2018,		3
23	Analysis of degenerate mechanisms triggering finite-amplitude thermo-acoustic oscillations in annular combustors. <i>Journal of Fluid Mechanics</i> , 2019 , 881, 384-419	3.7	2
22	Direct numerical simulation and analytical modeling of locally reacting, single degree of freedom acoustic liners with turbulent grazing flow 2014 ,		2
21	Aeroacoustics Control of a Turbulent Mach 1.3 Jet Using Adjoint-Based Optimization 2011,		2
20	On the linearity of the quieting of high speed mixing layers by heating 2012,		2
19	Fluid-Thermal-Structural Interactions in Ramp-Induced Shock-Wave Boundary-Layer Interactions at Mach 6 2021 ,		2
18	Multi-rate time integration on overset meshes. <i>Journal of Computational Physics</i> , 2019 , 396, 325-346	4.1	1
17	Heterogeneous computing with OpenMP and Hydra. <i>Concurrency Computation Practice and Experience</i> , 2020 , 32, e5728	1.4	1
16	Effects of the turbulent grazing flow over the impedance prediction of a single-orifice Helmholtz resonator 2016 ,		1
15	Direct numerical investigation of acoustic liners with single and multiple orifices grazed by a Mach 0.5 boundary layer 2016 ,		1
14	Mechanisms of Jet Noise Reduction and Their Impact on Large-Eddy Simulations (invited) 2011 ,		1
13	Adjoint-Based Optimal Control of a Mach 1.3 Turbulent Jet for Noise Reduction 2011 ,		1
12	Structural-acoustic response of an elastic plate with plane wave in a duct: Comparison of theory with numerical simulation 2011 ,		1
11	Numerical simulation of flow-induced sound generation from an orifice in a low Mach number ducted flow 2011 ,		1
10	Characteristic Boundary Conditions for Non-Orthogonal, Moving Meshes 2009,		1

9	Transport of disturbance energy in hot and cold turbulent jets 2007 ,		1	
8	Jump Relations of Certain Hypersingular Stokes Kernels on Regular Surfaces. <i>SIAM Journal on Applied Mathematics</i> , 2020 , 80, 2226-2248	1.8	1	
7	Direct Simulation of Fluid-Structure Interaction in Compression Ramp with Embedded Compliant Panel 2019 ,		1	
6	Global mode-based control of laminar and turbulent high-speed jets. <i>Comptes Rendus - Mecanique</i> , 2018 , 346, 978-996	2.1	О	
5	Stability analyses of compressible flat plate boundary layer flow over a mechanically compliant wall. <i>Theoretical and Computational Fluid Dynamics</i> , 2022 , 36, 141	2.3	О	
4	Data-driven sensor placement for fluid flows. <i>Theoretical and Computational Fluid Dynamics</i> , 2021 , 35, 709-729	2.3	О	
3	Boundary-consistent B-spline filtering schemes and application to high-fidelity simulations of turbulence. <i>Journal of Computational Physics</i> , 2020 , 419, 109680	4.1		
2	Improved eigenvectors for Pulliam-Chaussee diagonalized approximate-factorization algorithm. <i>Journal of Computational Physics</i> , 2020 , 412, 109443	4.1		
1	Accelerating Scientific Applications on Heterogeneous Systems with HybridOMP. <i>Lecture Notes in Computer Science</i> , 2019 , 174-187	0.9		