Aaron Towne

List of Publications by Year
in descending order

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51 papers	2,324 citations	448610 19 h-index	591227 27 g-index
53 all docs	53 docs citations	53 times ranked	953 citing authors

#	Article	IF	Citations
1	Absolute instability in shock-containing jets. Journal of Fluid Mechanics, 2022, 930, .	1.4	22
2	Resolvent-based tools for optimal estimation and control via the Wienerâ€“Hopf formalism. Journal of Fluid Mechanics, 2022, 937, .	1.4	15
3	Resolvent-based tools for optimal estimation and control via the Wienerâ€“Hopf formalism â€“ ERRATUM. Journal of Fluid Mechanics, 2022, 938, .	1.4	0
4	Space-time Galerkin projection via spectral proper orthogonal decomposition and resolvent modes. , 2021, , .		3
5	Amplitude Scaling of Wave Packets in Turbulent Jets. AIAA Journal, 2021, 59, 559-568.	1.5	5
6	Waves in screeching jets. Journal of Fluid Mechanics, 2021, 913, .	1.4	53
7	Efficient computation of global resolvent modes. Journal of Fluid Mechanics, 2021, 919, .	1.4	20
8	A randomized time-domain algorithm for efficiently computing resolvent modes. , 2021, , .		4
9	Resolvent-based estimation of turbulent channel flow using wall measurements. Journal of Fluid Mechanics, 2021, 927, .	1.4	18
10	An azimuthal Fourier domain formulation of the Ffowcs Williams and Hawkings equation. Journal of the Acoustical Society of America, 2021, 150, 1967-1978.	0.5	6
11	A complex-valued resonance model for axisymmetric screech tones in supersonic jets. Journal of Fluid Mechanics, 2021, 928, .	1.4	20
12	Resolvent-based modeling of turbulent jet noise. Journal of the Acoustical Society of America, 2021, 150, 2421-2433.	0.5	14
13	Resolvent-based jet noise models: a projection approach. , 2020, , .		4
14	Resolvent-based estimation of spaceâ€“time flowÂstatistics. Journal of Fluid Mechanics, 2020, 883, .	1.4	66
15	Resolvent-based optimal estimation of transitional and turbulent flows. Journal of Fluid Mechanics, 2020, 900, .	1.4	31
16	Ambiguity in mean-flow-based linear analysis. Journal of Fluid Mechanics, 2020, 900, .	1.4	19
17	Broadband reconstruction of inhomogeneous turbulence using spectral proper orthogonal decomposition and Gabor modes. Journal of Fluid Mechanics, 2020, 888, .	1.4	19
18	A critical assessment of the parabolized stability equations. Theoretical and Computational Fluid Dynamics, 2019, 33, 359-382.	0.9	31

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19	Reflection coefficients and screech-tone prediction in supersonic jets. , 2019, , .		4
20	Dynamics of round jet impingement. , 2019, , .		8
21	Modulation of downstream-propagating waves in aeroacoustic resonance. , 2019, , .		4
22	Investigating the effects of temperature non-uniformity on supersonic jet noise with large-eddy simulation. , 2019, , .		10
23	An investigation of the Mach number dependence of trapped acoustic waves in turbulent jets. , 2019, , .		8
24	An efficient streaming algorithm for spectral proper orthogonal decomposition. Computer Physics Communications, 2019, 237, 98-109.	3.0	46
25	Screech-tone prediction using upstream-travelling jet modes. Experiments in Fluids, 2019, 60, 1.	1.1	73
26	Modal analysis of the laminar boundary layer instability and tonal noise of an airfoil at Reynolds number 150,000. International Journal of Aeroacoustics, 2019, 18, 317-350.	0.8	30
27	Real-Time Estimation in a Turbulent Jet Using Multiple-Input-Multiple-Output Transfer Functions. , 2019, , .		0
28	Dimension Reduction for Shape Design Insight. , 2018, , .		0
29	Active Control of Noise from Hot Supersonic Jets. AIAA Journal, 2018, 56, 933-948.	1.5	19
30	Spectral analysis of jet turbulence. Journal of Fluid Mechanics, 2018, 855, 953-982.	1.4	268
31	Upstream-travelling acoustic jet modes as a closure mechanism for screech. Journal of Fluid Mechanics, 2018, 855, .	1.4	101
32	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
33	Amplitude scaling of turbulent-jet wavepackets. , 2018, , .		1
34	Importance of the nozzle-exit boundary-layer state in subsonic turbulent jets. Journal of Fluid Mechanics, 2018, 851, 83-124.	1.4	154
35	Jetâ€“flap interaction tones. Journal of Fluid Mechanics, 2018, 853, 333-358.	1.4	90
36	Approximating space-time flow statistics from a limited set of known correlations. , 2018, , .		2

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37	Laminar boundary layer instability noise. , 2017, , .		2
38	A statistical jet-noise model based on the resolvent framework. , 2017, , .		19
39	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
40	Acoustic resonance in the potential core of subsonic jets. Journal of Fluid Mechanics, 2017, 825, 1113-1152.	1.4	125
41	Super- and multi-directive acoustic radiation by linear global modes of a turbulent jet. , 2016, , .		10
42	Trapped acoustic waves in the potential core of subsonic jets. , 2016, , .		10
43	Tonal dynamics and sound in subsonic turbulent jets. , 2016, , .		6
44	Large eddy simulation for jet noise: azimuthal decomposition and intermittency of the radiated sound. , 2016, , .		18
45	One-way spatial integration of hyperbolic equations. Journal of Computational Physics, 2015, 300, 844-861.	1.9	40
46	Stochastic and nonlinear forcing of wavepackets in a Mach 0.9 jet. , 2015, , .		28
47	Simulation and Modeling of Turbulent Jet Noise. ERCOFTAC Series, 2015, , 305-310.	0.1	0
48	Continued development of the one-way Euler equations: application to jets. , 2014, , .		6
49	Improved Parabolization of the Euler Equations. , 2013, , .		9
50	Heat Transfer of Supercritical Carbon Dioxide in Printed Circuit Heat Exchanger Geometries. Journal of Thermal Science and Engineering Applications, 2011, 3, .	0.8	50
51	Heat Transfer of Supercritical Carbon Dioxide in Printed Circuit Heat Exchanger Geometries. , 2010, , .		5