

AndrÃ© Cavalieri

List of Publications by Year in descending order

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129
papers

3,048
citations

159525

30
h-index

189801

50
g-index

129
all docs

129
docs citations

129
times ranked

557
citing authors

#	ARTICLE	IF	CITATIONS
1	Wavepackets in the velocity field of turbulent jets. <i>Journal of Fluid Mechanics</i> , 2013, 730, 559-592.	1.4	204
2	Axisymmetric superdirectivity in subsonic jets. <i>Journal of Fluid Mechanics</i> , 2012, 704, 388-420.	1.4	180
3	Jittering wave-packet models for subsonic jet noise. <i>Journal of Sound and Vibration</i> , 2011, 330, 4474-4492.	2.1	158
4	Importance of the nozzle-exit boundary-layer state in subsonic turbulent jets. <i>Journal of Fluid Mechanics</i> , 2018, 851, 83-124.	1.4	154
5	Acoustic resonance in the potential core of subsonic jets. <i>Journal of Fluid Mechanics</i> , 2017, 825, 1113-1152.	1.4	125
6	Wavepackets and trapped acoustic modes in a turbulent jet: coherent structure eduction and global stability. <i>Journal of Fluid Mechanics</i> , 2017, 825, 1153-1181.	1.4	108
7	Scattering of wavepackets by a flat plate in the vicinity of a turbulent jet. <i>Journal of Sound and Vibration</i> , 2014, 333, 6516-6531.	2.1	103
8	Jet-flap interaction tones. <i>Journal of Fluid Mechanics</i> , 2018, 853, 333-358.	1.4	90
9	Wave-Packet Models for Jet Dynamics and Sound Radiation. <i>Applied Mechanics Reviews</i> , 2019, 71, .	4.5	80
10	Coherence decay and its impact on sound radiation by wavepackets. <i>Journal of Fluid Mechanics</i> , 2014, 748, 399-415.	1.4	70
11	Resolvent-based modeling of coherent wave packets in a turbulent jet. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	67
12	Using large eddy simulation to explore sound-source mechanisms in jets. <i>Journal of Sound and Vibration</i> , 2011, 330, 4098-4113.	2.1	61
13	Sensitivity of wavepackets in jets to nonlinear effects: the role of the critical layer. <i>Journal of Fluid Mechanics</i> , 2017, 811, 95-137.	1.4	53
14	Educing the source mechanism associated with downstream radiation in subsonic jets. <i>Journal of Fluid Mechanics</i> , 2012, 710, 606-640.	1.4	52
15	Intermittent sound generation and its control in a free-shear flow. <i>Physics of Fluids</i> , 2010, 22, .	1.6	51
16	Scattering of turbulent-jet wavepackets by a swept trailing edge. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 4350-4359.	0.5	49
17	Lift-up, Kelvin-Helmholtz and Orr mechanisms in turbulent jets. <i>Journal of Fluid Mechanics</i> , 2020, 896, .	1.4	49
18	A coherence-matched linear source mechanism for subsonic jet noise. <i>Journal of Fluid Mechanics</i> , 2015, 776, 235-267.	1.4	48

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19	Spectral proper orthogonal decomposition and resolvent analysis of near-wall coherent structures in turbulent pipe flows. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	1.4	48
20	Large-scale streaky structures in turbulent jets. <i>Journal of Fluid Mechanics</i> , 2019, 873, 211-237.	1.4	46
21	Farfield filtering and source imaging of subsonic jet noise. <i>Journal of Sound and Vibration</i> , 2013, 332, 4067-4088.	2.1	44
22	A model problem for sound radiation by an installed jet. <i>Journal of Sound and Vibration</i> , 2017, 391, 95-115.	2.1	44
23	Real-time modelling of wavepackets in turbulent jets. <i>Journal of Fluid Mechanics</i> , 2017, 821, 458-481.	1.4	43
24	The colour of forcing statistics in resolvent analyses of turbulent channel flows. <i>Journal of Fluid Mechanics</i> , 2021, 907, .	1.4	41
25	Numerical solution of acoustic scattering by finite perforated elastic plates. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20150767.	1.0	39
26	Two-point coherence of wave packets in turbulent jets. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	39
27	A study of linear wavepacket models for subsonic turbulent jets using local eigenmode decomposition of PIV data. <i>European Journal of Mechanics, B/Fluids</i> , 2015, 49, 308-321.	1.2	36
28	Forcing statistics in resolvent analysis: application in minimal turbulent Couette flow. <i>Journal of Fluid Mechanics</i> , 2021, 908, .	1.4	34
29	High-frequency wavepackets in turbulent jets. <i>Journal of Fluid Mechanics</i> , 2017, 830, .	1.4	32
30	Resolvent-based optimal estimation of transitional and turbulent flows. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	1.4	31
31	Near-field Wavepackets and the Far-field Sound of a Subsonic Jet. , 2013, , .		29
32	Stochastic and nonlinear forcing of wavepackets in a Mach 0.9 jet. , 2015, , .		28
33	Acoustically Informed Statistics for Wave-Packet Models. <i>AIAA Journal</i> , 2019, 57, 2421-2434.	1.5	27
34	Transfer functions for flow predictions in wall-bounded turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 864, 708-745.	1.4	26
35	Jet-noise control by fluidic injection from a rotating plug: linear and nonlinear sound-source mechanisms. <i>Journal of Fluid Mechanics</i> , 2016, 788, 358-380.	1.4	24
36	Resolvent modelling of near-wall coherent structures in turbulent channel flow. <i>International Journal of Heat and Fluid Flow</i> , 2020, 85, 108662.	1.1	23

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37	Trailing-edge noise from the scattering of spanwise-coherent structures. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	23
38	Closed-loop control of a free shear flow: a framework using the parabolized stability equations. <i>Theoretical and Computational Fluid Dynamics</i> , 2018, 32, 765-788.	0.9	22
39	Absolute instability in shock-containing jets. <i>Journal of Fluid Mechanics</i> , 2022, 930, .	1.4	22
40	Stochastic and harmonic optimal forcing in subsonic jets. , 2016, , .		20
41	Acoustic radiation of subsonic jets in the vicinity of an inclined flat plate. <i>Journal of the Acoustical Society of America</i> , 2019, 146, 50-59.	0.5	20
42	Efficient computation of global resolvent modes. <i>Journal of Fluid Mechanics</i> , 2021, 919, .	1.4	20
43	Experimental study of turbulent-jet wave packets and their acoustic efficiency. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	20
44	Ambiguity in mean-flow-based linear analysis. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	1.4	19
45	On the wave-cancelling nature of boundary layer flow control. <i>Theoretical and Computational Fluid Dynamics</i> , 2018, 32, 593-616.	0.9	18
46	Resolvent-based estimation of turbulent channel flow using wall measurements. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	1.4	18
47	Spatial stability analysis of subsonic corrugated jets. <i>Journal of Fluid Mechanics</i> , 2019, 876, 766-791.	1.4	17
48	Acoustic scattering by finite poroelastic plates. , 2014, , .		16
49	Wave packets and Orr mechanism in turbulent jets. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	16
50	Self-similar mechanisms in wall turbulence studied using resolvent analysis. <i>Journal of Fluid Mechanics</i> , 2022, 939, .	1.4	16
51	Scattering of turbulent-jet wavepackets by a swept trailing edge. , 2015, , .		15
52	On the role of actuation for the control of streaky structures in boundary layers. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	1.4	15
53	Resolvent-based tools for optimal estimation and control via the Wiener-Hopf formalism. <i>Journal of Fluid Mechanics</i> , 2022, 937, .	1.4	15
54	Farfield Filtering and Source-Imaging for the Study of Jet Noise. , 2010, , .		14

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55	A fast numerical framework to compute acoustic scattering by poroelastic plates of arbitrary geometry. <i>Journal of Computational Physics</i> , 2018, 373, 763-783.	1.9	14
56	Spanwise-coherent hydrodynamic waves around flat plates and airfoils. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	1.4	14
57	Real-time reactive control of stochastic disturbances in forced turbulent jets. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	14
58	Just enough jitter for jet noise?. , 2014, , .		13
59	Two-point wavepacket modelling of jet noise. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190199.	1.0	13
60	Acoustic modes in jet and wake stability. <i>Journal of Fluid Mechanics</i> , 2019, 867, 804-834.	1.4	13
61	A realizable data-driven approach to delay bypass transition with control theory. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	1.4	13
62	Nozzle dynamics and wavepackets in turbulent jets. <i>Journal of Fluid Mechanics</i> , 2021, 923, .	1.4	13
63	Axisymmetric superdirectivity in subsonic jets. , 2011, , .		11
64	Causality in the shock wave/turbulent boundary layer interaction. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	11
65	Trapped acoustic waves in the potential core of subsonic jets. , 2016, , .		10
66	Wavepacket modelling of broadband shock-associated noise in supersonic jets. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	1.4	10
67	Jittering Wave-Packet Models for Subsonic Jet Noise. , 2010, , .		9
68	Wavepackets in the velocity field of turbulent jets. , 2012, , .		9
69	Nonlinear and linear noise source mechanisms in subsonic jets. , 2013, , .		8
70	Sound and Sources of Sound in a Model Problem with Wake Interaction. <i>AIAA Journal</i> , 2015, 53, 2588-2606.	1.5	8
71	Closed-loop control of wavepackets in a free shear-flow. , 2016, , .		8
72	Experimental control of Tollmienâ€Schlichting waves using pressure sensors and plasma actuators. <i>Experiments in Fluids</i> , 2021, 62, 1.	1.1	8

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73	The effect of streaks on the instability of jets. <i>Journal of Fluid Mechanics</i> , 2021, 910, .	1.4	8
74	Stochastic linear modes in a turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2021, 912, .	1.4	8
75	Structure interactions in a reduced-order model for wall-bounded turbulence. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	8
76	Parabolized stability equation models for predicting large-scale mixing noise of turbulent round jets. , 2011, , .		7
77	Scattering of wavepackets by a flat plate in the vicinity of a turbulent jet. , 2012, , .		7
78	Turbulent jet noise in the absence of coherent structures. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	7
79	Farfield filtering of subsonic jet noise: Mach and Temperature effects. , 2011, , .		6
80	PSE-based prediction of sound radiation by installed jets. , 2016, , .		6
81	Resolvent analysis in unbounded flows: role of free-stream modes. <i>Theoretical and Computational Fluid Dynamics</i> , 2020, 34, 163-176.	0.9	6
82	Optimal control for colistin dosage selection. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 2021, 48, 803-813.	0.8	6
83	Jet Installation Noise Modeling in Static and Flight Conditions Using Centerline Fluctuations. <i>AIAA Journal</i> , 2022, 60, 3620-3634.	1.5	6
84	Transition to chaos in a reduced-order model of a shear layer. <i>Journal of Fluid Mechanics</i> , 2022, 932, .	1.4	6
85	Intermittency of the azimuthal components of the sound radiated by subsonic jets. , 2011, , .		5
86	Acoustic scattering by finite composite plates. , 2015, , .		5
87	On the modelling of wavepacket scattering noise with coherence effects. <i>Journal of the Acoustical Society of America</i> , 2019, 146, 4472-4480.	0.5	5
88	Flight Effects on Turbulent-Jet Wave Packets. <i>AIAA Journal</i> , 2020, 58, 3877-3888.	1.5	5
89	Dynamics of shear-layer coherent structures in a forced wall-bounded flow. <i>Journal of Fluid Mechanics</i> , 2021, 907, .	1.4	5
90	Amplitude Scaling of Wave Packets in Turbulent Jets. <i>AIAA Journal</i> , 2021, 59, 559-568.	1.5	5

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91	A coherence-matched linear model for subsonic jet noise. , 2014, , .		4
92	Acoustic scattering by finite composite plates. Journal of the Acoustical Society of America, 2018, 144, 1170-1179.	0.5	4
93	Passive control of coherent structures in a modified backwards-facing step flow. Experiments in Fluids, 2018, 59, 1.	1.1	4
94	Actuator and sensor placement for closed-loop control of convective instabilities. Theoretical and Computational Fluid Dynamics, 2020, 34, 619-641.	0.9	4
95	A randomized time-domain algorithm for efficiently computing resolvent modes. , 2021, , .		4
96	Tail and Control Surface Sizing for UAVs. , 2007, , .		3
97	Using LES to explore sound-source mechanisms in jets. Procedia Engineering, 2010, 6, 104-113.	1.2	3
98	Intermittent Sound Generation in a Free-Shear Flow. , 2010, , .		3
99	The effect of base-flow changes in Kelvin-Helmholtz instability. , 2013, , .		3
100	Spatial stability characteristics of non-circular jets. , 2015, , .		3
101	A fast numerical framework for acoustic scattering by 3D poroelastic plates. , 2015, , .		3
102	Two-point coherence of wavepackets in turbulent jets. , 2016, , .		3
103	Proper Orthogonal Decomposition and Spectral Analysis of a Wall-Mounted Square Cylinder Wake. Journal of Aerospace Technology and Management, 2018, 10, .	0.3	3
104	Cross proper orthogonal decomposition. Physical Review Fluids, 2021, 6, .	1.0	3
105	Wave cancellation in jets with laminar and turbulent boundary layers: The effect of nonlinearity. Physical Review Fluids, 2022, 7, .	1.0	3
106	Reprint of: Using LES to explore sound-source mechanisms in jets. Procedia IUTAM, 2010, 1, 104-113.	1.2	2
107	Wavepacket eduction in turbulent jets based on eigenmode decomposition of PIV data. , 2013, , .		2
108	Jet-noise control by fluidic injection from a rotating plug: linear and non-linear sound source mechanisms. , 2013, , .		2

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109	A model problem for sound radiation by an installed jet. , 2016, , .		2
110	Effects of coherence on jet-surface interaction noise. , 2016, , .		2
111	High-frequency wavepackets in turbulent jets. , 2016, , .		2
112	Scattering of turbulent-jet wavepackets by a flexible composite plate. , 2016, , .		2
113	Extracting Coherent Structures to Explore the Minimum Jet Noise. , 2016, , 358-366.		2
114	A comparison of data reduction techniques for the aeroacoustic analysis of flow over a blunt flat plate. Theoretical and Computational Fluid Dynamics, 2016, 30, 253-274.	0.9	2
115	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
116	Analysis of Compressible Potential Flow Over Airfoils Using the Dual Reciprocity Method. , 2007, , .		1
117	On the Calculation of an UAV's Response to Elevator Deflection. , 2007, , .		1
118	The Effect of Base-Flow Changes on Kelvin-Helmholtz Instability and Noise Radiation in Jets. , 2014, , .		1
119	A Control Framework for Wavepackets in Turbulent Jets Using Time-Domain Transfer Functions. , 2015, , .		1
120	Dual-plane, time-resolved, stereo PIV for wavepacket education in a turbulent subsonic jet. , 2015, , .		1
121	Jet noise reduction through filtering small-scale structures. , 2016, , .		1
122	Low-speed jet dynamics and sound radiation. , 2012, , .		0
123	Analysis of compressible potential flow over aerofoils using the dual reciprocity method. Aeronautical Journal, 2012, 116, 391-406.	1.1	0
124	A study of mechanisms of sound generation by airfoils using flow-acoustic correlations. , 2015, , .		0
125	Effects of structural damping on acoustic scattering by flexible plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190285.	1.0	0
126	Thermoacoustic analysis of combustion chambers with varying temperature: Numerical solutions and comparison with experiments. International Journal of Aeroacoustics, 2019, 18, 351-367.	0.8	0

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127	On the relation between the self-excited three-dimensionality of laminar separation bubbles and their receptivity to external disturbances. , 2021, , .		0
128	Resolvent-based tools for optimal estimation and control via the Wiener-Hopf formalism " ERRATUM. Journal of Fluid Mechanics, 2022, 938, .	1.4	0
129	Acoustic Scattering by Laminated Plates with Viscoelastic Layers. AIAA Journal, 2022, 60, 2469-2480.	1.5	0