

Woutijn Baars

List of Publications by Year in descending order

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42
papers

1,066
citations

393982

19
h-index

433756

31
g-index

46
all docs

46
docs citations

46
times ranked

487
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral stochastic estimation of high-Reynolds-number wall-bounded turbulence for a refined inner-outer interaction model. <i>Physical Review Fluids</i> , 2016, 1, .	1.0	87
2	Self-similarity of wall-attached turbulence in boundary layers. <i>Journal of Fluid Mechanics</i> , 2017, 823, .	1.4	82
3	Wavelet analysis of wall turbulence to study large-scale modulation of small scales. <i>Experiments in Fluids</i> , 2015, 56, 1.	1.1	80
4	Scaling of the streamwise turbulence intensity in the context of inner-outer interactions in wall turbulence. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	78
5	Skin-friction drag reduction in a high-Reynolds-number turbulent boundary layer via real-time control of large-scale structures. <i>International Journal of Heat and Fluid Flow</i> , 2017, 67, 30-41.	1.1	60
6	Shock-structures in the acoustic field of a Mach 3 jet with crackle. <i>Journal of Sound and Vibration</i> , 2014, 333, 2539-2553.	2.1	59
7	On cumulative nonlinear acoustic waveform distortions from high-speed jets. <i>Journal of Fluid Mechanics</i> , 2014, 749, 331-366.	1.4	56
8	Data-driven decomposition of the streamwise turbulence kinetic energy in boundary layers. Part 1. Energy spectra. <i>Journal of Fluid Mechanics</i> , 2020, 882, .	1.4	51
9	Wall Pressure Unsteadiness and Side Loads in Overexpanded Rocket Nozzles. <i>AIAA Journal</i> , 2012, 50, 61-73.	1.5	40
10	Wall-drag measurements of smooth- and rough-wall turbulent boundary layers using a floating element. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	40
11	Coalescence in the Sound Field of a Laboratory-Scale Supersonic Jet. <i>AIAA Journal</i> , 2016, 54, 254-265.	1.5	40
12	Reynolds number trend of hierarchies and scale interactions in turbulent boundary layers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160077.	1.6	38
13	Data-driven decomposition of the streamwise turbulence kinetic energy in boundary layers. Part 2. Integrated energy and. <i>Journal of Fluid Mechanics</i> , 2020, 882, .	1.4	32
14	Inner-outer interactions in rough-wall turbulence. <i>Journal of Turbulence</i> , 2016, 17, 1159-1178.	0.5	31
15	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. <i>Journal of Fluid Mechanics</i> , 2019, 871, 377-400.	1.4	28
16	Transient wall pressures in an overexpanded and large area ratio nozzle. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	24
17	Vertical Coherence of Turbulence in the Atmospheric Surface Layer: Connecting the Hypotheses of Townsend and Davenport. <i>Boundary-Layer Meteorology</i> , 2019, 172, 199-214.	1.2	24
18	Sound Produced by Large Area-Ratio Nozzles During Fixed and Transient Operations. <i>AIAA Journal</i> , 2014, 52, 1474-1485.	1.5	23

#	ARTICLE	IF	CITATIONS
19	Proper orthogonal decomposition-based spectral higher-order stochastic estimation. <i>Physics of Fluids</i> , 2014, 26, .	1.6	20
20	The effect of heat on turbulent mixing noise in supersonic jets. , 2011, , .		19
21	Piecewise-Spreading Regime Model for Calculating Effective Golâ€™dberg Numbers for Supersonic Jet Noise. <i>AIAA Journal</i> , 2016, 54, 2833-2842.	1.5	19
22	Nonlinear Noise Propagation from a Fully Expanded Mach 3 Jet. , 2012, , .		17
23	Flow dynamics and wall-pressure signatures in a high-Reynolds-number overexpanded nozzle with free shock separation. <i>Journal of Fluid Mechanics</i> , 2020, 895, .	1.4	12
24	The large-scale footprint in small-scale Rayleighâ€™nard turbulence. <i>Journal of Fluid Mechanics</i> , 2021, 911, .	1.4	12
25	Aerodynamic Interactions of Side-by-Side Rotors in Ground Proximity. <i>AIAA Journal</i> , 2022, 60, 4267-4277.	1.5	11
26	A proper framework for studying noise from jets with non-compact sources. <i>Journal of Fluid Mechanics</i> , 2021, 929, .	1.4	10
27	A Laboratory Framework for Synchronous Near/Far-Field Acoustics and MHz PIV in High-Temperature, Shock-Containing, Jets. , 2012, , .		9
28	Non-stationary shock motion unsteadiness in an axisymmetric geometry with pressure gradient. <i>Experiments in Fluids</i> , 2015, 56, 1.	1.1	8
29	Scale-dependent inclination angle of turbulent structures in stratified atmospheric surface layers. <i>Journal of Fluid Mechanics</i> , 2022, 942, .	1.4	8
30	Quantifying crackle-inducing acoustic shock-structures emitted by a fully-expanded Mach 3 jet. , 2013, , .		6
31	Time-Frequency Analysis of Rocket Nozzle Wall Pressures during Start-up Transients. <i>Journal of Physics: Conference Series</i> , 2011, 318, 092001.	0.3	5
32	Passive Nozzle-Based Technology for the Reduction of Heated Supersonic Jet Noise. , 2019, , .		5
33	Quantifying modulation in the acoustic field of a small-scale rotor using bispectral analysis. , 2021, , .		5
34	Pneumatic infrasound source: Theory and experiment. <i>Proceedings of Meetings on Acoustics</i> , 2013, , .	0.3	4
35	Acoustic waveforms produced by a laboratory scale supersonic jet. , 2014, , .		4
36	An Extended View of the Inner-outer Interaction Model for Wall-bounded Turbulence Using Spectral Linear Stochastic Estimation. <i>Procedia Engineering</i> , 2015, 126, 24-28.	1.2	4

#	ARTICLE	IF	CITATIONS
37	POD based spectral Higher-Order Stochastic Estimation. , 2010, , .		3
38	Higher-Order Statistical Analysis of Stability Upsets Induced by Elevator Horn Icing. , 2009, , .		2
39	On the Unsteadiness associated with Shock-Induced Separation in Overexpanded Rocket Nozzles. , 2010, , .		2
40	Acoustic characterization of sub-scale rocket nozzles. , 2012, , .		2
41	Modeling supersonic jet noise exposure using a data-informed wave packet approach. , 2020, , .		2
42	Jet noise predictions by time marching of single-snapshot tomographic PIV fields. Experiments in Fluids, 2022, 63, .	1.1	2