

Woutijn Baars

List of Publications by Year in descending order

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42
papers

1,066
citations

394421

19
h-index

434195

31
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46
all docs

46
docs citations

46
times ranked

487
citing authors

#	ARTICLE	IF	CITATIONS
1	Aerodynamic Interactions of Side-by-Side Rotors in Ground Proximity. AIAA Journal, 2022, 60, 4267-4277.	2.6	11
2	Jet noise predictions by time marching of single-snapshot tomographic PIV fields. Experiments in Fluids, 2022, 63, .	2.4	2
3	Scale-dependent inclination angle of turbulent structures in stratified atmospheric surface layers. Journal of Fluid Mechanics, 2022, 942, .	3.4	8
4	Quantifying modulation in the acoustic field of a small-scale rotor using bispectral analysis. , 2021, , .		5
5	The large-scale footprint in small-scale Rayleigh-Bénard turbulence. Journal of Fluid Mechanics, 2021, 911, .	3.4	12
6	A proper framework for studying noise from jets with non-compact sources. Journal of Fluid Mechanics, 2021, 929, .	3.4	10
7	Data-driven decomposition of the streamwise turbulence kinetic energy in boundary layers. Part 1. Energy spectra. Journal of Fluid Mechanics, 2020, 882, .	3.4	51
8	Data-driven decomposition of the streamwise turbulence kinetic energy in boundary layers. Part 2. Integrated energy and. Journal of Fluid Mechanics, 2020, 882, .	3.4	32
9	Flow dynamics and wall-pressure signatures in a high-Reynolds-number overexpanded nozzle with free shock separation. Journal of Fluid Mechanics, 2020, 895, .	3.4	12
10	Modeling supersonic jet noise exposure using a data-informed wave packet approach. , 2020, , .		2
11	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. Journal of Fluid Mechanics, 2019, 871, 377-400.	3.4	28
12	Vertical Coherence of Turbulence in the Atmospheric Surface Layer: Connecting the Hypotheses of Townsend and Davenport. Boundary-Layer Meteorology, 2019, 172, 199-214.	2.3	24
13	Passive Nozzle-Based Technology for the Reduction of Heated Supersonic Jet Noise. , 2019, , .		5
14	Reynolds number trend of hierarchies and scale interactions in turbulent boundary layers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160077.	3.4	38
15	Self-similarity of wall-attached turbulence in boundary layers. Journal of Fluid Mechanics, 2017, 823, .	3.4	82
16	Skin-friction drag reduction in a high-Reynolds-number turbulent boundary layer via real-time control of large-scale structures. International Journal of Heat and Fluid Flow, 2017, 67, 30-41.	2.4	60
17	Scaling of the streamwise turbulence intensity in the context of inner-outer interactions in wall turbulence. Physical Review Fluids, 2017, 2, .	2.5	78
18	Wall-drag measurements of smooth- and rough-wall turbulent boundary layers using a floating element. Experiments in Fluids, 2016, 57, 1.	2.4	40

#	ARTICLE	IF	CITATIONS
19	Inner-outer interactions in rough-wall turbulence. Journal of Turbulence, 2016, 17, 1159-1178.	1.4	31
20	Piecewise-Spreading Regime Model for Calculating Effective Gol'dberg Numbers for Supersonic Jet Noise. AIAA Journal, 2016, 54, 2833-2842.	2.6	19
21	Coalescence in the Sound Field of a Laboratory-Scale Supersonic Jet. AIAA Journal, 2016, 54, 254-265.	2.6	40
22	Spectral stochastic estimation of high-Reynolds-number wall-bounded turbulence for a refined inner-outer interaction model. Physical Review Fluids, 2016, 1, .	2.5	87
23	An Extended View of the Inner-outer Interaction Model for Wall-bounded Turbulence Using Spectral Linear Stochastic Estimation. Procedia Engineering, 2015, 126, 24-28.	1.2	4
24	Non-stationary shock motion unsteadiness in an axisymmetric geometry with pressure gradient. Experiments in Fluids, 2015, 56, 1.	2.4	8
25	Wavelet analysis of wall turbulence to study large-scale modulation of small scales. Experiments in Fluids, 2015, 56, 1.	2.4	80
26	Acoustic waveforms produced by a laboratory scale supersonic jet. , 2014, , .		4
27	Proper orthogonal decomposition-based spectral higher-order stochastic estimation. Physics of Fluids, 2014, 26, .	4.0	20
28	Sound Produced by Large Area-Ratio Nozzles During Fixed and Transient Operations. AIAA Journal, 2014, 52, 1474-1485.	2.6	23
29	Shock-structures in the acoustic field of a Mach 3 jet with crackle. Journal of Sound and Vibration, 2014, 333, 2539-2553.	3.9	59
30	On cumulative nonlinear acoustic waveform distortions from high-speed jets. Journal of Fluid Mechanics, 2014, 749, 331-366.	3.4	56
31	Transient wall pressures in an overexpanded and large area ratio nozzle. Experiments in Fluids, 2013, 54, 1.	2.4	24
32	Pneumatic infrasound source: Theory and experiment. Proceedings of Meetings on Acoustics, 2013, , .	0.3	4
33	Quantifying crackle-inducing acoustic shock-structures emitted by a fully-expanded Mach 3 jet. , 2013, , .		6
34	Nonlinear Noise Propagation from a Fully Expanded Mach 3 Jet. , 2012, , .		17
35	Wall Pressure Unsteadiness and Side Loads in Overexpanded Rocket Nozzles. AIAA Journal, 2012, 50, 61-73.	2.6	40
36	Acoustic characterization of sub-scale rocket nozzles. , 2012, , .		2

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37	A Laboratory Framework for Synchronous Near/Far-Field Acoustics and MHz PIV in High-Temperature, Shock-Containing, Jets. , 2012, , .		9
38	The effect of heat on turbulent mixing noise in supersonic jets. , 2011, , .		19
39	Time-Frequency Analysis of Rocket Nozzle Wall Pressures during Start-up Transients. Journal of Physics: Conference Series, 2011, 318, 092001.	0.4	5
40	POD based spectral Higher-Order Stochastic Estimation. , 2010, , .		3
41	On the Unsteadiness associated with Shock-Induced Separation in Overexpanded Rocket Nozzles. , 2010, , .		2
42	Higher-Order Statistical Analysis of Stability Upsets Induced by Elevator Horn Icing. , 2009, , .		2