Lutz Lesshafft

List of Publications by Year
in descending order

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		471509	395702
43	1,103	17	33
papers	citations	h-index	g-index

45	45	45	566
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conditions for validity of mean flow stabilityÂanalysis. Journal of Fluid Mechanics, 2016, 798, 485-504.	3.4	136
2	The preferred mode of incompressible jets: linear frequency response analysis. Journal of Fluid Mechanics, 2013, 716, 189-202.	3.4	133
3	Linear impulse response in hot round jets. Physics of Fluids, 2007, 19, 024102.	4.0	81
4	Wave-Packet Models for Jet Dynamics and Sound Radiation. Applied Mechanics Reviews, 2019, 71, .	10.1	80
5	Resolvent-based modeling of coherent wave packets in a turbulent jet. Physical Review Fluids, 2019, 4, .	2.5	67
6	Modal and transient dynamics of jet flows. Physics of Fluids, 2013, 25, .	4.0	63
7	Nonlinear global modes in hot jets. Journal of Fluid Mechanics, 2006, 554, 393.	3.4	58
8	Convective/absolute instability in miscible core-annular flow. Part 2. Numerical simulations and nonlinear global modes. Journal of Fluid Mechanics, 2009, 618, 323-348.	3.4	44
9	Frequency selection in globally unstable round jets. Physics of Fluids, 2007, 19, 054108.	4.0	43
10	Optimal velocity and density profiles for the onset of absolute instability in jets. Journal of Fluid Mechanics, 2010, 662, 398-408.	3.4	39
11	Global instability of low-density jets. Journal of Fluid Mechanics, 2017, 820, 187-207.	3.4	33
12	Global stability of buoyant jets and plumes. Journal of Fluid Mechanics, 2018, 835, 654-673.	3.4	32
13	Resolvent-based optimal estimation of transitional and turbulent flows. Journal of Fluid Mechanics, 2020, 900, .	3.4	31
14	Modeling of coherent structures in a turbulent jet as global linear instability wavepackets: Theory and experiment. International Journal of Heat and Fluid Flow, 2016, 62, 24-32.	2.4	24
15	Data assimilation and resolvent analysis of turbulent flow behind a wall-proximity rib. Physics of Fluids, 2019, 31, .	4.0	23
16	Stochastic and harmonic optimal forcing in subsonic jets. , 2016, , .		20
17	Artificial eigenmodes in truncated flow domains. Theoretical and Computational Fluid Dynamics, 2018, 32, 245-262.	2.2	20
18	Ambiguity in mean-flow-based linear analysis. Journal of Fluid Mechanics, 2020, 900, .	3.4	19

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19	A relaxation method for large eigenvalue problems, with an application to flow stability analysis. Journal of Computational Physics, 2012, 231, 3912-3927.	3.8	16
20	Self-similar mechanisms in wall turbulence studied using resolvent analysis. Journal of Fluid Mechanics, 2022, 939, .	3.4	16
21	Aerodynamic sound generation by global modes in hot jets. Journal of Fluid Mechanics, 2010, 647, 473-489.	3.4	14
22	Time-delayed feedback technique for suppressing instabilities in time-periodic flow. Physical Review Fluids, 2017, 2, .	2.5	12
23	Deep-water sediment wave formation: linear stability analysis of coupled flow/bed interaction. Journal of Fluid Mechanics, 2011, 680, 435-458.	3.4	11
24	Towards inverse modeling of turbidity currents: The inverse lock-exchange problem. Computers and Geosciences, 2011, 37, 521-529.	4.2	11
25	Local linear stability of laminar axisymmetricÂplumes. Journal of Fluid Mechanics, 2015, 780, 344-369.	3.4	11
26	Vortex pairing in jets as a global Floquet instability: modal and transient dynamics. Journal of Fluid Mechanics, 2019, 862, 951-989.	3.4	10
27	The effect of streaks on the instability of jets. Journal of Fluid Mechanics, 2021, 910, .	3.4	8
28	Optimal triggering of jet bifurcation: an example of optimal forcing applied to a time-periodic base flow. Journal of Fluid Mechanics, 2020, 885, .	3.4	7
29	Linear instability of a premixed slot flame: Flame transfer function and resolvent analysis. Combustion and Flame, 2022, 240, 112016.	5.2	7
30	Prediction of the Flow Response of a Turbulent Flame to Acoustic Pertubations Based on Mean Flow Resolvent Analysis. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	6
31	Linear global stability of a confined plume. Theoretical and Applied Mechanics Letters, 2015, 5, 126-128.	2.8	5
32	The influence of shear on double-diffusive and settling-driven instabilities. Journal of Fluid Mechanics, 2018, 849, 902-926.	3.4	5
33	Global stability and nonlinear dynamics of wake flows with a two-fluid interface. Journal of Fluid Mechanics, 2021, 915, .	3.4	5
34	Global Modes in Hot Jets, Absolute/Convective Instabilities and Acoustic Feedback. , 2005, , .		4
35	Global response to forcing in a subsonic jet: instability wavepackets and acoustic radiation. , 2013, , .		3
36	Preface to this Festschrift for Patrick Huerre. European Journal of Mechanics, B/Fluids, 2015, 49, 299-300.	2.5	2

#	Article	IF	Citations
37	Global linear stability of a model subsonic jet. , 2011, , .		1
38	Modal Instability Analysis of Light Jets. Procedia IUTAM, 2015, 14, 137-140.	1.2	1
39	Effect of Buoyancy on the Instability of Light Jets and Plumes. Springer Proceedings in Physics, 2016, , 61-67.	0.2	1
40	An empirical model of noise sources in subsonic jets, formulated in a linear resolvent framework. , 2022, , .		1
41	Can Jet Noise Be Predicted Using Linear Instability Wavepackets?. Springer Proceedings in Physics, 2016, , 413-418.	0.2	0
42	Real-Time Estimation in a Turbulent Jet Using Multiple-Input-Multiple-Output Transfer Functions. , 2019, , .		0
43	Prediction of the Flow Response of a Turbulent Flame to Acoustic Pertubations Based on Mean Flow Resolvent Analysis. , 2019, , .		0