Olaf Marxen

List of Publications by Year
in descending order

35 papers	**1,224** citations	361413 **20** h-index	642732 **23** g-index
38 all docs	**38** docs citations	**38** times ranked	**659** citing authors

#	Article	IF	Citations
1	Steady solutions of the Navier-Stokes equations by selective frequency damping. Physics of Fluids, 2006, 18, 068102.	4.0	255
2	Vortex formation and vortex breakup in a laminar separation bubble. Journal of Fluid Mechanics, 2013, 728, 58-90.	3.4	111
3	The effect of small-amplitude convective disturbances on the size and bursting of a laminar separation bubble. Journal of Fluid Mechanics, 2011, 671, 1-33.	3.4	106
4	Mean flow deformation in a laminar separation bubble: separation and stability characteristics. Journal of Fluid Mechanics, 2010, 660, 37-54.	3.4	84
5	Effect of Spanwise-Modulated Disturbances on Transition in a Separated Boundary Layer. AIAA Journal, 2004, 42, 937-944.	2.6	63
6	Disturbance evolution in a Mach 4.8 boundary layer with two-dimensional roughness-induced separation and shock. Journal of Fluid Mechanics, 2010, 648, 435-469.	3.4	60
7	DeepM&Mnet for hypersonics: Predicting the coupled flow and finite-rate chemistry behind a normal shock using neural-network approximation of operators. Journal of Computational Physics, 2021, 447, 110698.	3.8	55
8	Mechanisms for spatial steady three-dimensional disturbance growth in a non-parallel and separating boundary layer. Journal of Fluid Mechanics, 2009, 634, 165.	3.4	50
9	Nonlinear dynamics and synthetic-jet-based control of a canonical separated flow. Journal of Fluid Mechanics, 2010, 654, 65-97.	3.4	47
10	Stability analysis of separated flows subject to control by zero-net-mass-flux jet. Physics of Fluids, 2015, 27, .	4.0	36
11	Turbulence in intermittent transitional boundary layers and in turbulence spots. Journal of Fluid Mechanics, 2019, 860, 350-383.	3.4	33
12	Discrete linear local eigenmodes in a separating laminar boundary layer. Journal of Fluid Mechanics, 2012, 711, 1-26.	3.4	31
13	Direct numerical simulations of hypersonic boundary-layer transition with finite-rate chemistry. Journal of Fluid Mechanics, 2014, 755, 35-49.	3.4	30
14	Numerical Simulation of the Effect of a Roughness Element on High-Speed Boundary-Layer Instability. , 2008, , .		28
15	A high-order numerical method to study hypersonic boundary-layer instability including high-temperature gas effects. Physics of Fluids, 2011, 23, 084108.	4.0	27
16	Inertial waves in turbine rim seal flows. Physical Review Fluids, 2020, 5, .	2.5	27
17	A method for the direct numerical simulation of hypersonic boundary-layer instability with finite-rate chemistry. Journal of Computational Physics, 2013, 255, 572-589.	3.8	26
18	Boundary-layer stability of supercritical fluids in the vicinity of the Widom line. Journal of Fluid Mechanics, 2019, 871, 831-864.	3.4	25

#	Article	IF	Citations
19	Onset of convection induced by centrifugal buoyancy in a rotating cavity. Journal of Fluid Mechanics, 2017, 826, 484-502.	3.4	23
20	Direct Numerical Simulation of Rotating Cavity Flows Using a Spectral Element-Fourier Method. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	22
21	Effect of an axial throughflow on buoyancy-induced flow in a rotating cavity. International Journal of Heat and Fluid Flow, 2019, 80, 108468.	2.4	22
22	Large-Eddy Simulation of Buoyancy-Induced Flow in a Sealed Rotating Cavity. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	17
23	Nonlinear instability of a supersonic boundary layer with two-dimensional roughness. Journal of Fluid Mechanics, 2014, 752, 497-520.	3.4	12
24	Numerical Simulations of Hypersonic Boundary-Layer Instability with Localized Roughness. , 2011, , .		10
25	A comparison of laminar-turbulent boundary-layer transitions induced by deterministic and random oblique waves at Mach 3. International Journal of Heat and Fluid Flow, 2015, 56, 218-232.	2.4	4
26	Numerical Simulations of Synthetic Jet Based Separation Control in a Canonical Separated Flow. , 2007, , .		3
27	Numerical Simulation of the Bursting of a Laminar Separation Bubble. , 2007, , .		3
28	Direct Numerical Simulation of Rotating Cavity Flows Using a Spectral Element-Fourier Method. , 2016, , .		3
29	Large-Eddy Simulation of Buoyancy-Induced Flow in a Sealed Rotating Cavity. , 2018, , .		3
30	Viscous-inviscid interaction in laminar separation bubbles (invited). , 2020, , .		2
31	Transitional and Turbulent High-Speed Boundary-Layers on Surfaces with Distributed Roughness. , 2009, , .		1
32	Transition Prediction for Oblique Breakdown in Supersonic Boundary Layers with Uncertain Disturbance Spectrum. , 2012, , .		1
33	A Parallelizable Mathematical Framework for Linearized Analysis of Flows in the Presence of n-Periodic Structures. , 2021, , .		0
34	Direct Numerical Simulation of a Short Laminar Separation Bubble and Early Stages of the Bursting Process. , 2007, , 235-243.		0
35	Laminar-Turbulent Transition in a Laminar Separation Bubble: Influence of Disturbance Amplitude on Bubble Size and Bursting. , 2008, , 261-275.		0