Christopher Davies

List of Publications by Year
in descending order

46 papers	824 citations	566801 15 h-index	476904 29 g-index
50 all docs	50 docs citations	50 times ranked	360 citing authors

#	Article	IF	Citations
1	Instabilities in a plane channel flow between compliant walls. Journal of Fluid Mechanics, 1997, 352, 205-243.	1.4	128
2	A Novel Velocity–Vorticity Formulation of the Navier–Stokes Equations with Applications to Boundary Layer Disturbance Evolution. Journal of Computational Physics, 2001, 172, 119-165.	1.9	110
3	Numerical simulation of the evolution of Tollmien–Schlichting waves over finite compliant panels. Journal of Fluid Mechanics, 1997, 335, 361-392.	1.4	108
4	Global behaviour corresponding to the absolute instability of the rotating-disc boundary layer. Journal of Fluid Mechanics, 2003, 486, 287-329.	1.4	96
5	Progress on the Use of Compliant Walls for Laminar-Flow Control. Journal of Aircraft, 2001, 38, 504-512.	1.7	44
6	Modelling turbulent skin-friction control using linearized Navier–Stokes equations. Journal of Fluid Mechanics, 2012, 702, 403-414.	1.4	28
7	On the spiking stages in deep transition and unsteady separation. Journal of Engineering Mathematics, 2003, 45, 227-245.	0.6	25
8	Numerical Simulation of the Interaction of Microactuators and Boundary Layers. AIAA Journal, 2002, 40, 67-73.	1.5	24
9	Global stability of the rotating-disk boundary layer. Journal of Engineering Mathematics, 2007, 57, 219-236.	0.6	24
10	The linear stability of oscillatory Poiseuille flow in channels and pipes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2643-2662.	1.0	22
11	Control of Sublayer Streaks Using Microjet Actuators. AIAA Journal, 2005, 43, 1878-1886.	1.5	21
12	Evolution of disturbance wavepackets in an oscillatory Stokes layer. Journal of Fluid Mechanics, 2014, 752, 543-571.	1.4	18
13	The linear stability of a Stokes layer subjected to high-frequency perturbations. Journal of Fluid Mechanics, 2015, 764, 193-218.	1.4	18
14	Is Helmholtz Resonance a Problem for Micro-jet Actuators?. Flow, Turbulence and Combustion, 2007, 78, 205-222.	1.4	16
15	Global stability of the rotating-disc boundary layer with an axial magnetic field. Journal of Fluid Mechanics, 2013, 724, 510-526.	1.4	16
16	Direct numerical simulations of small disturbances in the classical Stokes layer. Journal of Engineering Mathematics, 2010, 68, 327-338.	0.6	14
17	The effects of mass transfer on the global stability of the rotating-disk boundary layer. Journal of Fluid Mechanics, 2010, 663, 401-433.	1.4	12
18	On the impulse response and global instability development of the infinite rotating-disc boundary layer. Journal of Fluid Mechanics, 2018, 857, 239-269.	1.4	11

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19	Effects of partial slip on the local-global linear stability of the infinite rotating disk boundary layer. Physics of Fluids, 2020, 32, .	1.6	11
20	A deterministic model for the sublayer streaks in turbulent boundary layers for application to flow control. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 2419-2441.	1.6	10
21	Convective and Absolute Instabilities of Flow Over Compliant Walls. Fluid Mechanics and Its Applications, 2003, , 69-93.	0.1	9
22	Global linear instability of rotating-cone boundary layers in a quiescent medium. Physical Review Fluids, 2019, 4, .	1.0	9
23	Linear stability eigenmodal analysis for steady and temporally periodic boundary-layer flow configurations using a velocity-vorticity formulation. Journal of Computational Physics, 2020, 409, 109325.	1.9	5
24	An adjoint approach for computing the receptivity of the rotating disc boundary layer to surface roughness. Journal of Fluid Mechanics, 2021, 926, .	1.4	5
25	Numerical simulation of boundary-layer disturbance evolution. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 1109-1118.	1.6	4
26	A wave driver theory for vortical waves propagating across junctions with application to those between rigid and compliant walls. Journal of Fluid Mechanics, 2009, 625, 1-46.	1.4	4
27	Global stability behaviour for the BEK family of rotating boundary layers. Theoretical and Computational Fluid Dynamics, 2017, 31, 519-536.	0.9	4
28	The linear stability of a Stokes layer with an imposed axial magnetic field. Journal of Fluid Mechanics, 2010, 662, 320-328.	1.4	3
29	Linear stability of the flow of a second order fluid past a wedge. Physics of Fluids, 2020, 32, .	1.6	3
30	Control of stationary convective instabilities in the rotating disk boundary layer via time-periodic modulation. Journal of Fluid Mechanics, 2021, 925, .	1.4	3
31	DISTURBANCE DEVELOPMENT IN BOUNDARY LAYERS OVER COMPLIANT SURFACES. , 2006, , 225-230.		3
32	Numerical simulation of the spatiotemporal development of linear disturbances in Stokes layers: Absolute instability and the effects of high-frequency harmonics. Physical Review Fluids, 2020, 5, .	1.0	3
33	Numerical simulation of the interaction of MEMS actuators and boundary layers. , 2000, , .		2
34	A high order finite-difference solver for investigation of disturbance development in turbulent boundary layers. Computers and Fluids, 2011, 46, 472-478.	1.3	2
35	Nonlinear effects on the receptivity of cross-flow in the swept Hiemenz flow. Journal of Fluid Mechanics, 2015, 763, 433-459.	1.4	2
36	Wave Propagation in Flows Across Junctions Between Rigid and Flexible Walls. , 2002, , .		2

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37	Stall, Transition and Turbulence: a Tribute to JDAW (invited). , 2005, , .		1
38	The Linear Impulse Response for Disturbances in an Oscillatory Stokes Layer. Procedia IUTAM, 2015, 14, 381-384.	1.2	1
39	KLEBANOFF MODES IN SWEPT BOUNDARY LAYERS. Fluid Mechanics and Its Applications, 2006, , 167-172.	0.1	1
40	Call for Papers: Special Issue on â€˜Flow in Collapsible Tubes or Over Compliant Surfaces for Biomedical Applicationsâ€™Communications in Numerical Methods in Engineering (CNM). International Journal for Numerical and Analytical Methods in Geomechanics, 2008, 32, 217-217.	1.7	0
41	Call for Papers: Special Issue on â€˜Flow in Collapsible Tubes or Over Compliant Surfaces for Biomedical Applicationsâ€™Communications in Numerical Methods in Engineering (CNM). Numerical Linear Algebra With Applications, 2008, 15, 391-391.	0.9	0
42	Modelling turbulent skin-friction control using linearised Navier-Stokes equations. Journal of Physics: Conference Series, 2011, 318, 042026.	0.3	0
43	The linear impulse response for disturbances in an oscillatory stokes layer. , 2013, , .		0
44	Onset of absolutely unstable behaviour in the Stokes layer: a Floquet approach to the Briggs method. Journal of Fluid Mechanics, 2021, 928, .	1.4	0
45	Computational Studies of Boundary-Layer Disturbance Development. Solid Mechanics and Its Applications, 2006, , 325-334.	0.1	0
46	An Investigation into the Evolution of Sub-Layer Streaks in Two- and Three-Dimensional Turbulent Boundary Layers. , 2007, , 94-96.		0