

# Christopher Davies

## List of Publications by Year in descending order

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46  
papers

824  
citations

567281

15  
h-index

477307

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. <i>Journal of Fluid Mechanics</i> , 1997, 352, 205-243.	3.4	128
2	A Novel Velocity-Vorticity Formulation of the Navier-Stokes Equations with Applications to Boundary Layer Disturbance Evolution. <i>Journal of Computational Physics</i> , 2001, 172, 119-165.	3.8	110
3	Numerical simulation of the evolution of Tollmien-Schlichting waves over finite compliant panels. <i>Journal of Fluid Mechanics</i> , 1997, 335, 361-392.	3.4	108
4	Global behaviour corresponding to the absolute instability of the rotating-disc boundary layer. <i>Journal of Fluid Mechanics</i> , 2003, 486, 287-329.	3.4	96
5	Progress on the Use of Compliant Walls for Laminar-Flow Control. <i>Journal of Aircraft</i> , 2001, 38, 504-512.	2.4	44
6	Modelling turbulent skin-friction control using linearized Navier-Stokes equations. <i>Journal of Fluid Mechanics</i> , 2012, 702, 403-414.	3.4	28
7	On the spiking stages in deep transition and unsteady separation. <i>Journal of Engineering Mathematics</i> , 2003, 45, 227-245.	1.2	25
8	Numerical Simulation of the Interaction of Microactuators and Boundary Layers. <i>AIAA Journal</i> , 2002, 40, 67-73.	2.6	24
9	Global stability of the rotating-disk boundary layer. <i>Journal of Engineering Mathematics</i> , 2007, 57, 219-236.	1.2	24
10	The linear stability of oscillatory Poiseuille flow in channels and pipes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 2643-2662.	2.1	22
11	Control of Sublayer Streaks Using Microjet Actuators. <i>AIAA Journal</i> , 2005, 43, 1878-1886.	2.6	21
12	Evolution of disturbance wavepackets in an oscillatory Stokes layer. <i>Journal of Fluid Mechanics</i> , 2014, 752, 543-571.	3.4	18
13	The linear stability of a Stokes layer subjected to high-frequency perturbations. <i>Journal of Fluid Mechanics</i> , 2015, 764, 193-218.	3.4	18
14	Is Helmholtz Resonance a Problem for Micro-jet Actuators?. <i>Flow, Turbulence and Combustion</i> , 2007, 78, 205-222.	2.6	16
15	Global stability of the rotating-disk boundary layer with an axial magnetic field. <i>Journal of Fluid Mechanics</i> , 2013, 724, 510-526.	3.4	16
16	Direct numerical simulations of small disturbances in the classical Stokes layer. <i>Journal of Engineering Mathematics</i> , 2010, 68, 327-338.	1.2	14
17	The effects of mass transfer on the global stability of the rotating-disk boundary layer. <i>Journal of Fluid Mechanics</i> , 2010, 663, 401-433.	3.4	12
18	On the impulse response and global instability development of the infinite rotating-disk boundary layer. <i>Journal of Fluid Mechanics</i> , 2018, 857, 239-269.	3.4	11

#	ARTICLE	IF	CITATIONS
19	Effects of partial slip on the local-global linear stability of the infinite rotating disk boundary layer. <i>Physics of Fluids</i> , 2020, 32, .	4.0	11
20	A deterministic model for the sublayer streaks in turbulent boundary layers for application to flow control. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007, 365, 2419-2441.	3.4	10
21	Convective and Absolute Instabilities of Flow Over Compliant Walls. <i>Fluid Mechanics and Its Applications</i> , 2003, , 69-93.	0.2	9
22	Global linear instability of rotating-cone boundary layers in a quiescent medium. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	9
23	Linear stability eigenmodal analysis for steady and temporally periodic boundary-layer flow configurations using a velocity-vorticity formulation. <i>Journal of Computational Physics</i> , 2020, 409, 109325.	3.8	5
24	An adjoint approach for computing the receptivity of the rotating disc boundary layer to surface roughness. <i>Journal of Fluid Mechanics</i> , 2021, 926, .	3.4	5
25	Numerical simulation of boundary-layer disturbance evolution. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005, 363, 1109-1118.	3.4	4
26	A wave driver theory for vortical waves propagating across junctions with application to those between rigid and compliant walls. <i>Journal of Fluid Mechanics</i> , 2009, 625, 1-46.	3.4	4
27	Global stability behaviour for the BEK family of rotating boundary layers. <i>Theoretical and Computational Fluid Dynamics</i> , 2017, 31, 519-536.	2.2	4
28	The linear stability of a Stokes layer with an imposed axial magnetic field. <i>Journal of Fluid Mechanics</i> , 2010, 662, 320-328.	3.4	3
29	Linear stability of the flow of a second order fluid past a wedge. <i>Physics of Fluids</i> , 2020, 32, .	4.0	3
30	Control of stationary convective instabilities in the rotating disk boundary layer via time-periodic modulation. <i>Journal of Fluid Mechanics</i> , 2021, 925, .	3.4	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. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	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. <i>Computers and Fluids</i> , 2011, 46, 472-478.	2.5	2
35	Nonlinear effects on the receptivity of cross-flow in the swept Hiemenz flow. <i>Journal of Fluid Mechanics</i> , 2015, 763, 433-459.	3.4	2
36	Wave Propagation in Flows Across Junctions Between Rigid and Flexible Walls. , 2002, , .		2

#	ARTICLE	IF	CITATIONS
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 SWEEPED BOUNDARY LAYERS. Fluid Mechanics and Its Applications, 2006, , 167-172.	0.2	1
40	Call for Papers: Special Issue on "Flow in Collapsible Tubes or Over Compliant Surfaces for Biomedical Applications" Communications in Numerical Methods in Engineering (CNM). International Journal for Numerical and Analytical Methods in Geomechanics, 2008, 32, 217-217.	3.3	0
41	Call for Papers: Special Issue on "Flow in Collapsible Tubes or Over Compliant Surfaces for Biomedical Applications" Communications in Numerical Methods in Engineering (CNM). Numerical Linear Algebra With Applications, 2008, 15, 391-391.	1.6	0
42	Modelling turbulent skin-friction control using linearised Navier-Stokes equations. Journal of Physics: Conference Series, 2011, 318, 042026.	0.4	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, .	3.4	0
45	Computational Studies of Boundary-Layer Disturbance Development. Solid Mechanics and Its Applications, 2006, , 325-334.	0.2	0
46	An Investigation into the Evolution of Sub-Layer Streaks in Two- and Three-Dimensional Turbulent Boundary Layers. , 2007, , 94-96.		0