

# D S Henningson

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

119  
papers

8,189  
citations

42  
h-index

89  
g-index

131  
ext. papers

9,805  
ext. citations

3.4  
avg, IF

6.11  
L-index

#	Paper	IF	Citations
119	Stability of Floating Wind Turbine Wakes. <i>Journal of Physics: Conference Series</i> , <b>2021</b> , 1934, 012009	0.3	0
118	The colour of forcing statistics in resolvent analyses of turbulent channel flows. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 907,	3.7	9
117	Forcing statistics in resolvent analysis: application in minimal turbulent Couette flow. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 908,	3.7	7
116	Experimental control of Tollmien-Schlichting waves using pressure sensors and plasma actuators. <i>Experiments in Fluids</i> , <b>2021</b> , 62, 1	2.5	1
115	On the onset of aeroelastic pitch-oscillations of a NACA0012 wing at transitional Reynolds numbers. <i>Journal of Fluids and Structures</i> , <b>2021</b> , 105, 103344	3.1	
114	Statistical characterization of free-stream turbulence induced transition under variable Reynolds number, free-stream turbulence, and pressure gradient. <i>Physics of Fluids</i> , <b>2021</b> , 33, 094115	4.4	1
113	Modeling the collapse of the edge when two transition routes compete. <i>Physical Review E</i> , <b>2020</b> , 102, 053108	2.4	
112	Parametric dependencies of the yawed wind-turbine wake development. <i>Wind Energy</i> , <b>2020</b> , 23, 1367-1380	3.4	3
111	Actuator and sensor placement for closed-loop control of convective instabilities. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2020</b> , 34, 619-641	2.3	1
110	A realizable data-driven approach to delay bypass transition with control theory. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 883,	3.7	3
109	Resolvent analysis in unbounded flows: role of free-stream modes. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2020</b> , 34, 163-176	2.3	0
108	Global linear analysis of a jet in cross-flow at low velocity ratios. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 889,	3.7	3
107	Optimal perturbations and transition energy thresholds in boundary layer shear flows. <i>Physical Review Fluids</i> , <b>2020</b> , 5,	2.8	2
106	Edge manifold as a Lagrangian coherent structure in a high-dimensional state space. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	2
105	On the role of actuation for the control of streaky structures in boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 883,	3.7	6
104	Numerical realization of helical vortices: application to vortex instability. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2020</b> , 34, 1-20	2.3	5
103	Resolvent modelling of near-wall coherent structures in turbulent channel flow. <i>International Journal of Heat and Fluid Flow</i> , <b>2020</b> , 85, 108662	2.4	8

102	On the linear global stability analysis of rigid-body motion fluid-structure-interaction problems. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 903,	3.7	4
101	Spectral proper orthogonal decomposition and resolvent analysis of near-wall coherent structures in turbulent pipe flows. <i>Journal of Fluid Mechanics</i> , <b>2020</b> , 900,	3.7	15
100	Tip-vortex instabilities of two in-line wind turbines. <i>Journal of Physics: Conference Series</i> , <b>2019</b> , 1256, 012015	0.3	3
99	Local and global pairing instabilities of two interlaced helical vortices. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 863, 927-955	3.7	20
98	On the stability of a Blasius boundary layer subject to localised suction. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 871, 717-741	3.7	3
97	On the relevance of Reynolds stresses in resolvent analyses of turbulent wall-bounded flows. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 867, 969-984	3.7	30
96	Transfer functions for flow predictions in wall-bounded turbulence. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 864, 708-745	3.7	15
95	Tip-vortex breakdown of wind turbines subject to shear. <i>Wind Energy</i> , <b>2019</b> , 22, 1789-1799	3.4	8
94	Edge tracking in spatially developing boundary layer flows. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 881, 164-183.	3.7	7
93	Unsteady aerodynamic effects in small-amplitude pitch oscillations of an airfoil. <i>International Journal of Heat and Fluid Flow</i> , <b>2018</b> , 71, 378-391	2.4	21
92	e-Science in Scandinavia. <i>Informatik-Spektrum</i> , <b>2018</b> , 41, 398-404	0.3	0
91	Topology optimization of heat sinks in a square differentially heated cavity. <i>International Journal of Heat and Fluid Flow</i> , <b>2018</b> , 74, 36-52	2.4	5
90	On the wave-cancelling nature of boundary layer flow control. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2018</b> , 32, 593-616	2.3	7
89	Adjoint optimization of natural convection problems: differentially heated cavity. <i>Theoretical and Computational Fluid Dynamics</i> , <b>2017</b> , 31, 537-553	2.3	5
88	Energy efficiency and performance limitations of linear adaptive control for transition delay. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 810, 60-81	3.7	10
87	Computing Optimal Forcing Using Laplace Preconditioning. <i>Communications in Computational Physics</i> , <b>2017</b> , 22, 1508-1532	2.4	4
86	Stability and sensitivity of a cross-flow-dominated Falkner-Skan-Cooke boundary layer with discrete surface roughness. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 826, 830-850	3.7	9
85	Bypass transition and spot nucleation in boundary layers. <i>Physical Review Fluids</i> , <b>2016</b> , 1,	2.8	21

84	Acoustic receptivity simulations of flow past a flat plate with elliptic leading edge. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 800,	3.7	4
83	Edge states as mediators of bypass transition in boundary-layer flows. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 801,	3.7	18
82	Turbulence collapse in a suction boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 795, 356-379	3.7	13
81	In-flight active wave cancelation with delayed-x-LMS control algorithm in a laminar boundary layer. <i>Experiments in Fluids</i> , <b>2016</b> , 57, 1	2.5	9
80	Optimal wavepackets in streamwise corner flow. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 766, 405-435	3.7	4
79	Feedback Control for Laminarization of flow over Wings. <i>Flow, Turbulence and Combustion</i> , <b>2015</b> , 94, 43-62	2.5	7
78	Global stability and optimal perturbation for a jet in cross-flow. <i>European Journal of Mechanics, B/Fluids</i> , <b>2015</b> , 49, 438-447	2.4	16
77	On the role of adaptivity for robust laminar flow control. <i>Journal of Fluid Mechanics</i> , <b>2015</b> , 767,	3.7	25
76	On the near-wall vortical structures at moderate Reynolds numbers. <i>European Journal of Mechanics, B/Fluids</i> , <b>2014</b> , 48, 75-93	2.4	45
75	Complexity of localised coherent structures in a boundary-layer flow. <i>European Physical Journal E</i> , <b>2014</b> , 37, 32	1.5	13
74	Adaptive and Model-Based Control Theory Applied to Convectively Unstable Flows. <i>Applied Mechanics Reviews</i> , <b>2014</b> , 66,	8.6	43
73	Mutual inductance instability of the tip vortices behind a wind turbine. <i>Journal of Fluid Mechanics</i> , <b>2014</b> , 755, 705-731	3.7	88
72	Stabilization of the Spectral Element Method in Convection Dominated Flows by Recovery of Skew-Symmetry. <i>Journal of Scientific Computing</i> , <b>2013</b> , 57, 254-277	2.3	20
71	Output Feedback Control of Blasius Flow with Leading Edge Using Plasma Actuator. <i>AIAA Journal</i> , <b>2013</b> , 51, 2192-2207	2.1	14
70	Minimal transition thresholds in plane Couette flow. <i>Physics of Fluids</i> , <b>2013</b> , 25, 084103	4.4	51
69	Stabilization of a swept-wing boundary layer by distributed roughness elements. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 718,	3.7	29
68	Riccati-less approach for optimal control and estimation: an application to two-dimensional boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 731, 394-417	3.7	22
67	Localized edge states in the asymptotic suction boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 717,	3.7	40

66	Transition delay in a boundary layer flow using active control. <i>Journal of Fluid Mechanics</i> , <b>2013</b> , 731, 288-311	3.7	28
65	Feedback control of instabilities in the two-dimensional Blasius boundary layer: The role of sensors and actuators. <i>Physics of Fluids</i> , <b>2013</b> , 25, 054106	4.4	43
64	Swept-wing boundary-layer receptivity. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 700, 490-501	3.7	16
63	Spatial optimal growth in three-dimensional compressible boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 704, 251-279	3.7	25
62	Bifurcation and stability analysis of a jet in cross-flow: onset of global instability at a low velocity ratio. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 696, 94-121	3.7	38
61	Swept wing boundary-layer receptivity to localized surface roughness. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 711, 516-544	3.7	37
60	Self-similar transport of inertial particles in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 706, 584-596	3.7	27
59	Self-sustained localized structures in a boundary-layer flow. <i>Physical Review Letters</i> , <b>2012</b> , 108, 044501	7.4	43
58	The effect of small-amplitude convective disturbances on the size and bursting of a laminar separation bubble. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 671, 1-33	3.7	80
57	Transition delay using control theory. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2011</b> , 369, 1365-81	3	30
56	Nonequilibrium thermodynamics and the optimal path to turbulence in shear flows. <i>Physical Review Letters</i> , <b>2011</b> , 106, 134502	7.4	72
55	Feedback control of three-dimensional optimal disturbances using reduced-order models. <i>Journal of Fluid Mechanics</i> , <b>2011</b> , 677, 63-102	3.7	45
54	Global three-dimensional optimal disturbances in the Blasius boundary-layer flow using time-steppers. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 650, 181-214	3.7	83
53	Receptivity to free-stream vorticity of flow past a flat plate with elliptic leading edge. <i>Journal of Fluid Mechanics</i> , <b>2010</b> , 653, 245-271	3.7	54
52	Global stability of a jet in crossflow. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 624, 33-44	3.7	148
51	Input-Output Analysis and Control Design Applied to a Linear Model of Spatially Developing Flows. <i>Applied Mechanics Reviews</i> , <b>2009</b> , 62,	8.6	102
50	Spectral analysis of nonlinear flows. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 641, 115-127	3.7	1064
49	Matrix-Free Methods for the Stability and Control of Boundary Layers. <i>AIAA Journal</i> , <b>2009</b> , 47, 1057-1068	8.1	67

48	Turbulent boundary layers up to $Re_{\theta} \approx 2500$ studied through simulation and experiment. <i>Physics of Fluids</i> , <b>2009</b> , 21, 051702	4.4	161
47	Input-Output analysis, model reduction and control of the flat-plate boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2009</b> , 620, 263-298	3.7	109
46	On streak breakdown in bypass transition. <i>Physics of Fluids</i> , <b>2008</b> , 20, 101505	4.4	112
45	DNS and LES of estimation and control of transition in boundary layers subject to free-stream turbulence. <i>International Journal of Heat and Fluid Flow</i> , <b>2008</b> , 29, 841-855	2.4	29
44	Global two-dimensional stability measures of the flat plate boundary-layer flow. <i>European Journal of Mechanics, B/Fluids</i> , <b>2008</b> , 27, 501-513	2.4	89
43	Linear feedback control and estimation applied to instabilities in spatially developing boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 588, 163-187	3.7	33
42	Turbulent spots in the asymptotic suction boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2007</b> , 584, 397-413	3.7	20
41	Optimal disturbances in suction boundary layers. <i>European Journal of Mechanics, B/Fluids</i> , <b>2007</b> , 26, 330-343	3.7	8
40	Steady solutions of the Navier-Stokes equations by selective frequency damping. <i>Physics of Fluids</i> , <b>2006</b> , 18, 068102	4.4	186
39	State estimation in wall-bounded flow systems. Part 2. Turbulent flows. <i>Journal of Fluid Mechanics</i> , <b>2006</b> , 552, 167	3.7	50
38	High Order Accurate Solution of Flow Past a Circular Cylinder. <i>Journal of Scientific Computing</i> , <b>2006</b> , 27, 431-441	2.3	20
37	The Influence of Periodic Excitation on a Turbulent Separation Bubble. <i>Flow, Turbulence and Combustion</i> , <b>2006</b> , 76, 1-21	2.5	13
36	Optimal feedback control applied to boundary layer flow. <i>Journal of Turbulence</i> , <b>2005</b> , 6, N25	2.1	2
35	A study of the Blasius wall jet. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 539, 313	3.7	34
34	Transient growth on boundary layer streaks. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 537, 91	3.7	60
33	State estimation in wall-bounded flow systems. Part 1. Perturbed laminar flows. <i>Journal of Fluid Mechanics</i> , <b>2005</b> , 534, 263-294	3.7	56
32	Transition in boundary layers subject to free-stream turbulence. <i>Journal of Fluid Mechanics</i> , <b>2004</b> , 517, 167-198	3.7	263
31	Relaminarization of $Re_{\theta} \approx 100$ turbulence using gain scheduling and linear state-feedback control. <i>Physics of Fluids</i> , <b>2003</b> , 15, 3572-3575	4.4	50

30	Exponential vs Algebraic Growth and Transition Prediction in Boundary Layer Flow. <i>Flow, Turbulence and Combustion</i> , <b>2003</b> , 70, 183-210	2.5	32
29	Linear feedback control and estimation of transition in plane channel flow. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 481, 149-175	3.7	114
28	On the convectively unstable nature of optimal streaks in boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 485, 221-242	3.7	57
27	Weakly nonlinear analysis of boundary layer receptivity to free-stream disturbances. <i>Physics of Fluids</i> , <b>2002</b> , 14, 1426-1441	4.4	17
26	Varicose instabilities in turbulent boundary layers. <i>Physics of Fluids</i> , <b>2002</b> , 14, 2309	4.4	32
25	Transition of streamwise streaks in zero-pressure-gradient boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 472, 229-261	3.7	100
24	Direct numerical simulation of a separated turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 471, 107-136	3.7	110
23	Linear optimal control applied to instabilities in spatially developing boundary layers. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 470, 151-179	3.7	44
22	Adjoint-based optimization of steady suction for disturbance control in incompressible flows. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 467, 129-161	3.7	37
21	On the stability of a falling liquid curtain. <i>Journal of Fluid Mechanics</i> , <b>2002</b> , 463, 163-171	3.7	39
20	A numerical and experimental study of a transitional separation bubble. <i>Aerospace Science and Technology</i> , <b>2001</b> , 5, 317-328	4.9	41
19	On the breakdown of boundary layer streaks. <i>Journal of Fluid Mechanics</i> , <b>2001</b> , 428, 29-60	3.7	311
18	Stability and Transition in Shear Flows. <i>Applied Mathematical Sciences (Switzerland)</i> , <b>2001</b> ,	0.9	1236
17	Sensitivity Analysis Using Adjoint Parabolized Stability Equations for Compressible Flows. <i>Flow, Turbulence and Combustion</i> , <b>2000</b> , 65, 321-346	2.5	47
16	Optimal disturbances and bypass transition in boundary layers. <i>Physics of Fluids</i> , <b>1999</b> , 11, 134-150	4.4	430
15	A nonlinear mechanism for receptivity of free-stream disturbances. <i>Physics of Fluids</i> , <b>1999</b> , 11, 3749-3760	4.4	24
14	On stability of streamwise streaks and transition thresholds in plane channel flows. <i>Journal of Fluid Mechanics</i> , <b>1998</b> , 365, 269-303	3.7	182
13	Linear and nonlinear development of localized disturbances in zero and adverse pressure gradient boundary-layers. <i>Physics of Fluids</i> , <b>1998</b> , 10, 1405-1418	4.4	23

12	Transient growth in compressible boundary layer flow. <i>Physics of Fluids</i> , <b>1996</b> , 8, 826-837	4.4	166
11	Localized disturbances in parallel shear flows. <i>Flow, Turbulence and Combustion</i> , <b>1994</b> , 53, 51-97		15
10	Optimal energy density growth in Hagen-Poiseuille flow. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 277, 197-225	3.7	173
9	Bounds for threshold amplitudes in subcritical shear flows. <i>Journal of Fluid Mechanics</i> , <b>1994</b> , 270, 175-198	3.7	60
8	Energy growth in viscous channel flows. <i>Journal of Fluid Mechanics</i> , <b>1993</b> , 252, 209-238	3.7	510
7	A mechanism for bypass transition from localized disturbances in wall-bounded shear flows. <i>Journal of Fluid Mechanics</i> , <b>1993</b> , 250, 169-207	3.7	167
6	A study of eigenvalue sensitivity for hydrodynamic stability operators. <i>Theoretical and Computational Fluid Dynamics</i> , <b>1993</b> , 4, 227-240	2.3	25
5	A new mechanism for rapid transition involving a pair of oblique waves. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1992</b> , 4, 1986-1989		99
4	On turbulent spots in plane Poiseuille flow. <i>Journal of Fluid Mechanics Digital Archive</i> , <b>1991</b> , 228, 183		12
3	Wave growth and spreading of a turbulent spot in plane Poiseuille flow. <i>Physics of Fluids A, Fluid Dynamics</i> , <b>1989</b> , 1, 1876-1882		18
2	The wave structure of turbulent spots in plane Poiseuille flow. <i>Journal of Fluid Mechanics</i> , <b>1987</b> , 178, 405-421	3.7	46
1	On time-dependent settling of a dilute suspension in a rotating conical channel. <i>Journal of Fluid Mechanics</i> , <b>1986</b> , 166, 473	3.7	16