Philippe R Spalart

List of Publications by Citations

28 papers	4,149 citations	15 h-index	29 g-index
29 ext. papers	4,824 ext. citations	2.9 avg, IF	5.81 L-index

#	Paper	IF	Citations
28	Direct simulation of a turbulent boundary layer up to R□ 1410. *Journal of Fluid Mechanics*, **1988**, 187, 61-98	3.7	1385
27	Strategies for turbulence modelling and simulations. *International Journal of Heat and Fluid Flow*, **2000**, 21, 252-263	2.4	848
26	Spectral methods for the Navier-Stokes equations with one infinite and two periodic directions. *Journal of Computational Physics*, **1991**, 96, 297-324	4.1	458
25	Turbulence Modeling in Rotating and Curved Channels: Assessing the Spalart-Shur Correction. *AIAA Journal*, **2000**, 38, 784-792	2.1	336
24	Experimental and numerical study of a turbulent boundary layer with pressure gradients. *Journal of Fluid Mechanics*, **1993**, 249, 337	3.7	268
23	Noise Prediction for Increasingly Complex Jets. Part I: Methods and Tests. *International Journal of Aeroacoustics*, **2005**, 4, 213-245	2.1	241
22	Mechanisms of transition and heat transfer in a separation bubble. *Journal of Fluid Mechanics*, **2000**, 403, 329-349	3.7	217
21	Trends in turbulence treatments **2000**,		126
20	Predictions of a Supersonic Turbulent Flow in a Square Duct **2013**,		47
19	Numerical study of turbulent separation bubbles with varying pressure gradient and Reynolds number. *Journal of Fluid Mechanics*, **2018**, 847, 28-70	3.7	31
18	Direct numerical simulation of a decelerated wall-bounded turbulent shear flow. *Journal of Fluid Mechanics*, **2003**, 495, 1-18	3.7	26
17	Direct Simulation and RANS Modelling of a Vortex Generator Flow. *Flow, Turbulence and Combustion*, **2015**, 95, 335-350	2.5	23
16	On the precise implications of acoustic analogies for aerodynamic noise at low Mach numbers. *Journal of Sound and Vibration*, **2013**, 332, 2808-2815	3.9	18
15	The resilience of the logarithmic law to pressure gradients: evidence from direct numerical simulation. *Journal of Fluid Mechanics*, **2010**, 643, 163-175	3.7	17
14	Improvements to the Quadratic Constitutive Relation Based on NASA Juncture Flow Data. *AIAA Journal*, **2020**, 58, 4374-4384	2.1	12
13	A note on constraints in turbulence modelling. *Journal of Fluid Mechanics*, **1999**, 391, 373-376	3.7	12
12	On the skin friction due to turbulence in ducts of various shapes. *Journal of Fluid Mechanics*, **2018**, 838, 369-378	3.7	11

List of Publications

11	Direct Numerical Simulation, Theories and Modelling of Wall Turbulence with a Range of Pressure Gradients. *Flow, Turbulence and Combustion*, **2015**, 95, 261-276	2.5	9
10	RANS Solutions in Couette flow with streamwise vortices. *International Journal of Heat and Fluid Flow*, **2014**, 49, 128-134	2.4	9
9	Direct Numerical Simulation and Theory of a Wall-Bounded Flow with Zero Skin Friction. *Flow, Turbulence and Combustion*, **2017**, 99, 553-564	2.5	9
8	Correction to the Spalart□Allmaras Turbulence Model, Providing More Accurate Skin Friction. *AIAA Journal*, **2020**, 58, 1903-1905	2.1	8
7	On the differences in noise predictions based on solid and permeable surface Ffowcs Williams□Hawkings integral solutions. *International Journal of Aeroacoustics*, **2019**, 18, 621-646	2.1	7
6	Wall-Modeled LES of Flow over a Gaussian Bump with Strong Pressure Gradients and Separation **2020**,		3
5	Numerical study of a turbulent separation bubble with sweep. *Journal of Fluid Mechanics*, **2019**, 880, 684-706	3.7	3
4	Empirical scaling laws for wall-bounded turbulence deduced from direct numerical simulations. *Physical Review Fluids*, **2021**, 6,	2.8	2
3	Direct numerical simulation of the two-dimensional speed bump flow at increasing Reynolds numbers. *International Journal of Heat and Fluid Flow*, **2021**, 90, 108840	2.4	1
2	On the Application of Incomplete Ffowcs Williams and Hawkings Surfaces for Aeroacoustic Predictions. *AIAA Journal*,1-7	2.1	0
1	Analysis and extension of the quadratic constitutive relation for RANS methods. *Aeronautical Journal*, **2021**, 125, 1746-1767	0.9	