

# Nicholas John Lawson

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

1,171  
citations

471509

17  
h-index

395702

33  
g-index

61  
all docs

61  
docs citations

61  
times ranked

839  
citing authors

#	ARTICLE	IF	CITATIONS
1	The aerodynamics of <i>Manduca sexta</i> : digital particle image velocimetry analysis of the leading-edge vortex. <i>Journal of Experimental Biology</i> , 2005, 208, 1079-1094.	1.7	158
2	Three-dimensional particle image velocimetry: experimental error analysis of a digital angular stereoscopic system. <i>Measurement Science and Technology</i> , 1997, 8, 1455-1464.	2.6	126
3	Three-dimensional particle image velocimetry: error analysis of stereoscopic techniques. <i>Measurement Science and Technology</i> , 1997, 8, 894-900.	2.6	111
4	Application of digital particle image velocimetry to insect aerodynamics: measurement of the leading-edge vortex and near wake of a Hawkmoth. <i>Experiments in Fluids</i> , 2006, 40, 546-554.	2.4	80
5	The vortex structure behind an Ahmed reference model in the presence of a moving ground plane. <i>Experiments in Fluids</i> , 2007, 42, 659-669.	2.4	70
6	SELF-SUSTAINED OSCILLATION OF A SUBMERGED JET IN A THIN RECTANGULAR CAVITY. <i>Journal of Fluids and Structures</i> , 2001, 15, 59-81.	3.4	48
7	Measurement of shock wave unsteadiness using a high-speed schlieren system and digital image processing. <i>Review of Scientific Instruments</i> , 2008, 79, 126108.	1.3	43
8	Development of piezoelectric fans for flapping wing application. <i>Sensors and Actuators A: Physical</i> , 2009, 149, 136-142.	4.1	42
9	Experimental and numerical comparisons of the break-up of a large bubble. <i>Experiments in Fluids</i> , 1999, 26, 524-534.	2.4	37
10	Digital particle image velocimetry measurements of the downwash distribution of a desert locust <i>Schistocerca gregaria</i> . <i>Journal of the Royal Society Interface</i> , 2006, 3, 311-317.	3.4	37
11	Development and application of optical fibre strain and pressure sensors for in-flight measurements. <i>Measurement Science and Technology</i> , 2016, 27, 104001.	2.6	37
12	Coupled piezoelectric fans with two degree of freedom motion for the application of flapping wing micro aerial vehicles. <i>Sensors and Actuators A: Physical</i> , 2008, 147, 607-612.	4.1	31
13	Application of Optical Measurement Techniques to Supersonic and Hypersonic Aerospace Flows. <i>Journal of Aerospace Engineering</i> , 2009, 22, 383-395.	1.4	30
14	Oscillatory Flow in a Physical Model of a Thin Slab Casting Mould With a Bifurcated Submerged Entry Nozzle. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002, 124, 535-543.	1.5	20
15	Non-intrusive flow diagnostics for unsteady inlet flow distortion measurements in novel aircraft architectures. <i>Progress in Aerospace Sciences</i> , 2022, 130, 100810.	12.1	19
16	Crossflow Characteristics of an Oscillating Jet in a Thin Slab Casting Mould. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1999, 121, 588-595.	1.5	18
17	Hypersonic interference heating in the vicinity of surface protuberances. <i>Experiments in Fluids</i> , 2010, 49, 683-699.	2.4	18
18	Jetstream 31 national flying laboratory: Lift and drag measurement and modelling. <i>Aerospace Science and Technology</i> , 2017, 60, 84-95.	4.8	15

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19	Unsteady Detached-Eddy Simulation (DES) of the Jetstream 31 aircraft in One Engine Inoperative (OEI) condition with propeller modelling. <i>Aerospace Science and Technology</i> , 2019, 91, 287-300.	4.8	13
20	High-speed photogrammetry system for measuring the kinematics of insect wings. <i>Applied Optics</i> , 2006, 45, 4165.	2.1	12
21	Pressure measurements on aircraft wing using phase-shifted fibre Bragg grating sensors. , 2009, , .		12
22	Three-dimensional particle image velocimetry: a low-cost 35mm angular stereoscopic system for liquid flows. <i>Optics and Lasers in Engineering</i> , 1999, 32, 1-19.	3.8	11
23	THE MEASUREMENT OF THE FLOW AROUND A SPHERE SETTLING IN A RECTANGULAR BOX USING 3-DIMENSIONAL PARTICLE IMAGE VELOCIMETRY. <i>Chemical Engineering Communications</i> , 2001, 188, 143-178.	2.6	11
24	An Experimental and Numerical Investigation of an Open Transonic Cavity. , 2003, , .		11
25	3-D particle image velocimetry of the flow field around a sphere sedimenting near a wall. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2005, 127, 95-106.	2.4	11
26	Evaluation and correction of perspective errors in endoscopic PIV. <i>Experiments in Fluids</i> , 2004, 36, 701-705.	2.4	9
27	CFD simulation of flow around angle of attack and sideslip angle vanes on a BAe Jetstream 3102 â€œ Part 1. <i>Aerospace Science and Technology</i> , 2017, 68, 561-576.	4.8	9
28	Control of a submerged jet in a thin rectangular cavity. <i>Journal of Fluids and Structures</i> , 2005, 20, 1025-1042.	3.4	8
29	3D particle image velocimetry of the flow field around a sphere sedimenting near a wall. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2007, 141, 99-115.	2.4	8
30	Schlieren visualization of high-speed flows using a continuous LED light source. <i>Journal of Visualization</i> , 2009, 12, 289-290.	1.8	8
31	Experimental study of unsteadiness in supersonic shock-wave/turbulent boundary-layer interactions with separation. <i>Aeronautical Journal</i> , 2010, 114, 299-308.	1.6	8
32	On the development of flight-test equipment in relation to the aircraft spin. <i>Progress in Aerospace Sciences</i> , 2018, 102, 47-59.	12.1	7
33	In-flight spatial disorientation induces roll reversal errors when using the attitude indicator. <i>Applied Ergonomics</i> , 2019, 81, 102905.	3.1	7
34	A generalised optimisation method for double pulsed particle image velocimetry. <i>Optics and Lasers in Engineering</i> , 1997, 27, 637-656.	3.8	6
35	Low-cost design of 35 mm drum camera for high-resolution, high-speed image analysis. <i>Review of Scientific Instruments</i> , 1998, 69, 4195-4197.	1.3	6
36	Force and moment measurements for a generic car model in proximity to a side wall. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2012, 226, 1352-1364.	1.9	6

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37	DES of a Slingsby Firefly Aircraft: Unsteady Flow Feature Extraction Using POD and HODMD. Journal of Aerospace Engineering, 2022, 35, .	1.4	6
38	Comparison of flight test data with a computational fluid dynamics model of a Scottish Aviation Bulldog aircraft. Aeronautical Journal, 2013, 117, 1273-1291.	1.6	5
39	CFD simulation of flow around angle of attack and sideslip angle vanes on a BAe Jetstream 3102 " Part 2. Aerospace Science and Technology, 2017, 68, 577-587.	4.8	5
40	Dispersion of neutrally buoyant solids falling vertically into stationary liquid and horizontal channel flow. Computers and Fluids, 2000, 29, 369-384.	2.5	4
41	On perspective errors in endoscopic PIV. Comptes Rendus - Mecanique, 2004, 332, 687-692.	2.1	4
42	Combined stereoscopic particle image velocimetry and line integral convolution methods. Journal of Visualization, 2005, 8, 261-268.	1.8	4
43	Volume three-dimensional flow measurements using wavelength multiplexing. Optics Letters, 2005, 30, 2569.	3.3	4
44	Development of the Cranfield University Bulldog flight test facility. Aeronautical Journal, 2017, 121, 533-552.	1.6	4
45	Forcing Boundary-Layer Transition on an Inverted Airfoil in Ground Effect. Journal of Aircraft, 2017, 54, 2165-2172.	2.4	4
46	Unsteady aerodynamics analysis and modelling of a Slingsby Firefly aircraft: Detached-Eddy Simulation model and flight test validation. Aerospace Science and Technology, 2020, 106, 106179.	4.8	4
47	Fibre-optic measurement of strain and shape on a helicopter rotor blade during a ground run: 1. Measurement of strain. Smart Materials and Structures, 2022, 31, 075014.	3.5	4
48	Vectoring a Self-sustained Oscillatory Confined Jet Flow by Secondary Cross-Flow Injection. , 2004, , .		3
49	Regressor time-shifting to identify longitudinal stability and control derivatives of the Jetstream 3102. Aerospace Science and Technology, 2017, 69, 218-225.	4.8	3
50	High-speed close-range photogrammetry for dynamic shape measurement. , 2005, 5580, 358.		2
51	Hypersonic Interference Heating: a Semi-Empirical Hot Spot Predictive Approach. , 2009, , .		2
52	Wind tunnel unsteady pressure measurements using a differential optical fiber Fabry-Perot pressure sensor. , 2014, , .		2
53	Modelling of a Scottish Aviation Bulldog using reverse engineering, wind tunnel and numerical methods. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2014, 228, 2736-2742.	1.3	2
54	Transient and time-averaged characteristics of a compressible ground vortex flow. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2014, 228, 375-383.	1.3	2

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55	Particle image velocimetry: theory and application of image labelling using a polarization-sensitive pupil mask. Measurement Science and Technology, 1995, 6, 1317-1324.	2.6	1
56	Control of an Oscillatory Rectangular Cavity Jet Flow by Secondary Injection. JSME International Journal Series B, 2006, 49, 1105-1110.	0.3	1
57	A low-cost, high-magnification imaging system for particle sizing applications. Measurement Science and Technology, 2014, 25, 027002.	2.6	1
58	On the Near-Wake of a Ground-Effect Diffuser with Passive Flow Control. International Journal of Automotive Technology, 2019, 20, 11-23.	1.4	1
59	Particle image velocity: Image labelling using dynamic encoding of the point spread function. Optics and Lasers in Engineering, 1993, 19, 241-248.	3.8	0
60	Forcing Boundary-Layer Transition on an Inverted Airfoil in Ground Effect at Varying Incidence. , 2016, , .		0
61	Undercarriage drag prediction for a fixed undercarriage light aircraft. , 2017, , .		0