

James W Gregory

List of Publications by Year in descending order

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114
papers

2,807
citations

201575

27
h-index

223716

46
g-index

118
all docs

118
docs citations

118
times ranked

892
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of pressure-sensitive paint for high-speed and unsteady aerodynamics. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2008, 222, 249-290.	0.7	311
2	Fast Pressure-Sensitive Paint for Flow and Acoustic Diagnostics. Annual Review of Fluid Mechanics, 2014, 46, 303-330.	10.8	241
3	Characterization of the Microfluidic Oscillator. AIAA Journal, 2007, 45, 568-576.	1.5	112
4	A Review of Fluidic Oscillator Development and Application for Flow Control. , 2013, , .		90
5	Experimental and Numerical Investigation of Sweeping Jet Film Cooling. Journal of Turbomachinery, 2018, 140, .	0.9	68
6	Porous Pressure-Sensitive Paint for Characterizing Unsteady Flowfields. AIAA Journal, 2002, 40, 1094-1098.	1.5	62
7	Pressure-sensitive paint as a distributed optical microphone array. Journal of the Acoustical Society of America, 2006, 119, 251-261.	0.5	58
8	Temperature-Compensated Fast Pressure-Sensitive Paint. AIAA Journal, 2013, 51, 2420-2431.	1.5	54
9	Single-shot, lifetime-based pressure-sensitive paint for rotating blades. Measurement Science and Technology, 2011, 22, 085403.	1.4	53
10	Drag Reduction on the 25-deg Ahmed Model Using Fluidic Oscillators. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	52
11	Single-shot temperature- and pressure-sensitive paint measurements on an unsteady helicopter blade. Experiments in Fluids, 2014, 55, 1.	1.1	51
12	Comparison of unsteady pressure fields on turrets with different surface features using pressure-sensitive paint. Experiments in Fluids, 2014, 55, 1.	1.1	50
13	Porous Pressure-Sensitive Paint for Measurement of Unsteady Pressures in Turbomachinery. , 2004, , .		48
14	Effect of Quenching Kinetics on Unsteady Response of Pressure-Sensitive Paint. AIAA Journal, 2006, 44, 634-645.	1.5	46
15	Internal jet interactions in a fluidic oscillator at low flow rate. Experiments in Fluids, 2014, 55, 1.	1.1	44
16	Microchannel Pressure Measurements Using Molecular Sensors. Journal of Microelectromechanical Systems, 2007, 16, 777-785.	1.7	43
17	Motion-deblurred, fast-response pressure-sensitive paint on a rotor in forward flight. Measurement Science and Technology, 2012, 23, 045303.	1.4	43
18	Measuring Surface Pressures on Rotor Blades Using Pressure-Sensitive Paint. AIAA Journal, 2016, 54, 206-215.	1.5	39

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19	Blade Element Momentum Modeling of Low-Reynolds Electric Propulsion Systems. <i>Journal of Aircraft</i> , 2017, 54, 163-176.	1.7	39
20	Dynamic Mode Decomposition of Fast Pressure Sensitive Paint Data. <i>Sensors</i> , 2016, 16, 862.	2.1	38
21	Visualization of jet mixing in a fluidic oscillator. <i>Journal of Visualization</i> , 2005, 8, 169-176.	1.1	37
22	Control of High Subsonic Cavity Flow Using Plasma Actuators. <i>AIAA Journal</i> , 2014, 52, 1542-1554.	1.5	37
23	Frequency-Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. <i>AIAA Journal</i> , 2016, 54, 174-185.	1.5	36
24	Variable-Frequency Fluidic Oscillator Driven by a Piezoelectric Bender. <i>AIAA Journal</i> , 2009, 47, 2717-2725.	1.5	34
25	Application of fast-responding pressure-sensitive paint to a hemispherical dome in unsteady transonic flow. <i>Experiments in Fluids</i> , 2011, 50, 1495-1505.	1.1	34
26	Sweeping Jet Film Cooling on a Turbine Vane. <i>Journal of Turbomachinery</i> , 2019, 141, .	0.9	33
27	Performance Measurement and Wake Characteristics of a Model Rotor in Axial Flight. <i>Journal of the American Helicopter Society</i> , 1999, 44, 101-108.	0.5	32
28	Phase-Synchronized Fluidic Oscillator Pair. <i>AIAA Journal</i> , 2019, 57, 670-681.	1.5	30
29	Effect of Three-Dimensional Plasma Actuation on the Wake of a Circular Cylinder. <i>AIAA Journal</i> , 2015, 53, 958-967.	1.5	29
30	The applications of pressure-sensitive paint in microfluidic systems. <i>Microfluidics and Nanofluidics</i> , 2015, 18, 739-753.	1.0	29
31	Global surface pressure measurements of static and dynamic stall on a wind turbine airfoil at low Reynolds number. <i>Experiments in Fluids</i> , 2016, 57, 1.	1.1	29
32	Oscillation characteristics of mutually impinging dual jets in a mixing chamber. <i>Physics of Fluids</i> , 2018, 30, 117102.	1.6	29
33	Flow visualization and pressure measurement in micronozzles. <i>Journal of Visualization</i> , 2007, 10, 281-288.	1.1	27
34	Step Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. <i>Sensors</i> , 2015, 15, 22304-22324.	2.1	27
35	Vortex dynamics during blade-vortex interactions. <i>Physics of Fluids</i> , 2015, 27, .	1.6	27
36	Modification of Transonic Blowdown Wind Tunnel to Produce Oscillating Freestream Mach Number. <i>AIAA Journal</i> , 2011, 49, 2555-2563.	1.5	26

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37	Comparison of Unsteady Pressure-Sensitive Paint Measurement Techniques. AIAA Journal, 2012, 50, 109-122.	1.5	25
38	Characterization of a Micro Fluidic Oscillator for Flow Control. , 2004, , .		24
39	Switching Behavior of a Plasma-Fluidic Actuator. , 2007, , .		24
40	Measurement of transient acoustic fields using a single-shot pressure-sensitive paint system. Review of Scientific Instruments, 2011, 82, 075112.	0.6	24
41	Frequency Studies and Scaling Effects of Jet Interaction in a Feedback-Free Fluidic Oscillator. , 2012, , .		24
42	Investigation of the cylinder wake under spanwise periodic forcing with a segmented plasma actuator. Physics of Fluids, 2015, 27, .	1.6	24
43	Investigation of Crossflow Interaction of an Oscillating Jet. , 2017, , .		23
44	Inverse Methods for Deblurring Pressure-Sensitive Paint Images of Rotating Surfaces. AIAA Journal, 2014, 52, 2045-2061.	1.5	22
45	Effects of Curvature on the Performance of Sweeping Jet Impingement Heat Transfer. , 2018, , .		20
46	Fluidic Oscillator as a Dynamic Calibration Tool. , 2002, , .		19
47	Circular Cylinder Wake Control Using Spatially Distributed Plasma Forcing. , 2008, , .		19
48	Effects of Roughness on the Performance of Fluidic Oscillators. , 2017, , .		19
49	Asymmetric distributions in pressure/load fluctuation levels during blade-vortex interactions. Journal of Fluids and Structures, 2017, 68, 58-71.	1.5	19
50	Optimum-wavelength forcing of a bluff body wake. Physics of Fluids, 2018, 30, .	1.6	19
51	Effects of Fluidic Oscillator Nozzle Angle on the Flowfield and Impingement Heat Transfer. AIAA Journal, 2021, 59, 2113-2125.	1.5	19
52	Integrated Optical Measurement Techniques for Investigation of Fluid-Structure Interactions. , 2009, , .		18
53	Dynamic Calibrations for Fast-Response Porous Polymer/Ceramic Pressure-Sensitive Paint. , 2013, , .		18
54	Impingement Heat Transfer Characteric of a Sweeping Jet. , 2017, , .		18

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55	A modified schlieren technique for micro flow visualization. Measurement Science and Technology, 2007, 18, N32-N34.	1.4	17
56	Impact of Rotor Airframe Orientation on the Aerodynamic and Aeroacoustic Characteristics of Small Unmanned Aerial Systems. Drones, 2019, 3, 56.	2.7	17
57	The unsteady Kutta condition on an airfoil in a surging flow. Journal of Fluid Mechanics, 2020, 893, .	1.4	17
58	Characterization of Hartmann Tube Flow with Porous Pressure-Sensitive Paint. , 2003, , .		15
59	Global Skin-Friction Diagnostics Based on Surface Mass-Transfer Visualizations. AIAA Journal, 2014, 52, 2369-2383.	1.5	14
60	The Effect of Spatially and Temporally Modulated Plasma Actuation on Cylinder Wake. AIAA Journal, 2020, 58, 3808-3818.	1.5	14
61	INTERNAL FLOW PHYSICS OF A FLUIDIC OSCILLATOR SPRAY IN THE TRANSITION REGIME. Atomization and Sprays, 2016, 26, 673-686.	0.3	13
62	Data Processing Tools for Dynamic Pressure-Sensitive Paint. , 2017, , .		12
63	Iterative Blind Deconvolution Algorithm for Deblurring a Single PSP/TSP Image of Rotating Surfaces. Sensors, 2018, 18, 3075.	2.1	12
64	Experimental Investigation of Innovative Cooling Schemes on an Additively Manufactured Engine Scale Turbine Nozzle Guide Vane. Journal of Turbomachinery, 2021, 143, .	0.9	12
65	PSP Measurements on an Oscillating NACA 0012 Airfoil in Compressible Flow. , 2011, , .		11
66	Scaling Considerations for Fluidic Oscillator Flow Control on the Square-back Ahmed Vehicle Model. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 8, 328-337.	0.4	11
67	Experimental and Numerical Investigation of Sweeping Jet Film Cooling. , 2017, , .		11
68	Resolving vortex-induced pressure fluctuations on a cylinder in rotor wake using fast-responding pressure-sensitive paint. Physics of Fluids, 2019, 31, .	1.6	11
69	Experimental Investigation of Sweeping Jet Film Cooling in a Transonic Turbine Cascade. Journal of Turbomachinery, 2020, 142, .	0.9	11
70	Passive Trip Evaluation Using Infrared Thermography. , 2012, , .		10
71	Deployment of a Pressure Sensitive Paint System for Measuring Global Surface Pressures on Rotorcraft Blades in Simulated Forward Flight. , 2012, , .		10
72	Derived Angle of Attack and Sideslip Angle Characterization for General Aviation. Journal of Guidance, Control, and Dynamics, 2020, 43, 1039-1055.	1.6	10

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73	Blade Tip Pressure Measurements Using Pressure-Sensitive Paint. Journal of the American Helicopter Society, 2018, , .	0.5	9
74	Study of Unsteady Surface Pressure on a Turret via Pressure-Sensitive Paint. , 2013, , .		8
75	Jet Interactions in a Feedback-Free Fluidic Oscillator at Low Flow Rate. , 2013, , .		8
76	Nanosecond Dielectric Barrier Discharge Plasma Actuator Flow Control of Compressible Dynamic Stall. , 2015, , .		8
77	Comparison of Blur Elimination Techniques for PSP Images of Rotating Surfaces. , 2016, , .		8
78	The Estimation of the Unsteady Aerodynamic Force Applied to a Turret in Flight. , 2013, , .		7
79	Variable-Frequency Fluidic Oscillator Driven by Piezoelectric Devices. , 2005, , .		6
80	Unsteady Compressible Flow on a NACA 0021 Airfoil. , 2011, , .		6
81	Unsteady surface signature of a pulsed vortex generator jet. Journal of Visualization, 2011, 14, 121-127.	1.1	6
82	Effect of Three-Dimensional Plasma Actuation on the Wake of a Circular Cylinder. , 2012, , .		6
83	Thin-Wing Vibration Control Using Flexible Fins. AIAA Journal, 2013, 51, 2218-2230.	1.5	6
84	Dynamic Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. , 2015, , .		6
85	Development of a Two Layer Dual-luminophore Pressure Sensitive Paint for Unsteady Pressure Measurements. , 2010, , .		5
86	The Optimum Wavelength of Spanwise Segmented Plasma Actuator Forcing of a Circular Cylinder Wake. , 2013, , .		5
87	The Comparison of Unsteady Pressure Field over Flat- and Conformal-Window Turrets using Pressure Sensitive Paint. , 2013, , .		5
88	Time-Resolved Measurements of Cellular Separation on a Stalling Airfoil. , 2015, , .		5
89	Transient wall-jet flowing over a circular cylinder. Experiments in Fluids, 2016, 57, 1.	1.1	5
90	Design and Development of a High-Speed UAS for beyond Visual Line-of-Sight Operations. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 101, 1.	2.0	5

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91	Molecular Sensors in Microturbine Measurement. , 2006, , 577.		4
92	Measurement Techniques for Shock Movement Capture on a NACA 0012 in Unsteady Compressible Flow. , 2012, , .		4
93	Flight Test Protocol for Electric Powered Small Unmanned Aerial Systems. , 2014, , .		4
94	Instabilities and turbulence in a forced turbulent convex wall jet. Physics of Fluids, 2020, 32, 095111.	1.6	4
95	Unsteady Pressure-Sensitive Paint Measurements on an Articulated Model Helicopter in Forward Flight. , 2012, , .		3
96	Aerodynamic Parameter Estimation for Derived Angle-of-Attack Systems. , 2017, , .		3
97	Aerodynamic Characterization of a Quad-Rotor Helicopter. , 2018, , .		3
98	Experimental Study of the Interaction between Rotor Wake and a Cylinder in Hover. , 2018, , .		3
99	Optical Method for Measuring Low Wall Shear Stresses Using Thermal Tufts. AIAA Journal, 2008, 46, 1088-1095.	1.5	2
100	Study of the Wake of a Circular Cylinder under Spatially and Temporally Modulated Plasma Actuation. , 2012, , .		2
101	Temperature-Compensated Fast Pressure-Sensitive Paint. , 2012, , .		2
102	Characterizing Wave Propagation in an Unsteady Transonic Wind Tunnel. , 2018, , .		2
103	Investigation of Side-View Mirror Flow-Induced Vibration Phenomena. , 2010, , .		1
104	Investigation of Vibration Phenomena Induced by Air Flow Over Side View Mirror. Journal of Fluids Engineering, Transactions of the ASME, 2011, 133, .	0.8	1
105	Smartphone-Based Data Acquisition for an Undergraduate Course on Aircraft Flight Testing. , 2012, , .		1
106	Pressure Field of a Yawed Aspect Ratio 1 Circular Cylinder. , 2017, , .		1
107	Design and Development of a High-Speed UAS for Beyond Line-of-Sight Operation. , 2018, , .		1
108	Rotor Wake Structure Development in Low Reynolds Number Conditions. , 2018, , .		1

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109	A Comprehensive Approach to Study Aerodynamic and Aeroacoustic Performances of Small Multicopter Unmanned Aerial Systems. , 2018, , .		1
110	Aerodynamic Performance and Trailing Edge Flow Physics on an Airfoil in an Oscillating Freestream. , 2020, , .		1
111	Effect of Quenching Kinetics on the Unsteady Response of Pressure-Sensitive Paint. , 2004, , .		0
112	Range and Endurance Estimation for Low- <i>Re</i> <i>Electric</i> UAS. , 2017, , .		0
113	Reynolds Scaling Effects on Dynamic Stall of VR-7 and VR-12 Airfoils. , 2019, , .		0
114	Spanwise Wavelength of Streamwise Vortices in a Forced Turbulent Convex Wall Jet. AIAA Journal, 2021, 59, 1875-1879.	1.5	0