

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	Experimental Investigation of Innovative Cooling Schemes on an Additively Manufactured Engine Scale Turbine Nozzle Guide Vane. <i>Journal of Turbomachinery</i> , 2021, 143, .	0.9	12
2	Spanwise Wavelength of Streamwise Vortices in a Forced Turbulent Convex Wall Jet. <i>AIAA Journal</i> , 2021, 59, 1875-1879.	1.5	0
3	Effects of Fluidic Oscillator Nozzle Angle on the Flowfield and Impingement Heat Transfer. <i>AIAA Journal</i> , 2021, 59, 2113-2125.	1.5	19
4	Design and Development of a High-Speed UAS for beyond Visual Line-of-Sight Operations. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2021, 101, 1.	2.0	5
5	The Effect of Spatially and Temporally Modulated Plasma Actuation on Cylinder Wake. <i>AIAA Journal</i> , 2020, 58, 3808-3818.	1.5	14
6	Instabilities and turbulence in a forced turbulent convex wall jet. <i>Physics of Fluids</i> , 2020, 32, 095111.	1.6	4
7	Derived Angle of Attack and Sideslip Angle Characterization for General Aviation. <i>Journal of Guidance, Control, and Dynamics</i> , 2020, 43, 1039-1055.	1.6	10
8	Aerodynamic Performance and Trailing Edge Flow Physics on an Airfoil in an Oscillating Freestream. , 2020, , .		1
9	The unsteady Kutta condition on an airfoil in a surging flow. <i>Journal of Fluid Mechanics</i> , 2020, 893, .	1.4	17
10	Experimental Investigation of Sweeping Jet Film Cooling in a Transonic Turbine Cascade. <i>Journal of Turbomachinery</i> , 2020, 142, .	0.9	11
11	Impact of Rotor Airframe Orientation on the Aerodynamic and Aeroacoustic Characteristics of Small Unmanned Aerial Systems. <i>Drones</i> , 2019, 3, 56.	2.7	17
12	Resolving vortex-induced pressure fluctuations on a cylinder in rotor wake using fast-responding pressure-sensitive paint. <i>Physics of Fluids</i> , 2019, 31, .	1.6	11
13	Reynolds Scaling Effects on Dynamic Stall of VR-7 and VR-12 Airfoils. , 2019, , .		0
14	Sweeping Jet Film Cooling on a Turbine Vane. <i>Journal of Turbomachinery</i> , 2019, 141, .	0.9	33
15	Phase-Synchronized Fluidic Oscillator Pair. <i>AIAA Journal</i> , 2019, 57, 670-681.	1.5	30
16	Effects of Curvature on the Performance of Sweeping Jet Impingement Heat Transfer. , 2018, , .		20
17	Design and Development of a High-Speed UAS for Beyond Line-of-Sight Operation. , 2018, , .		1
18	Aerodynamic Characterization of a Quad-Rotor Helicopter. , 2018, , .		3

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19	Rotor Wake Structure Development in Low Reynolds Number Conditions. , 2018, , .		1
20	A Comprehensive Approach to Study Aerodynamic and Aeroacoustic Performances of Small Multicopter Unmanned Aerial Systems. , 2018, , .		1
21	Optimum-wavelength forcing of a bluff body wake. Physics of Fluids, 2018, 30, .	1.6	19
22	Experimental and Numerical Investigation of Sweeping Jet Film Cooling. Journal of Turbomachinery, 2018, 140, .	0.9	68
23	Oscillation characteristics of mutually impinging dual jets in a mixing chamber. Physics of Fluids, 2018, 30, 117102.	1.6	29
24	Blade Tip Pressure Measurements Using Pressure-Sensitive Paint. Journal of the American Helicopter Society, 2018, , .	0.5	9
25	Iterative Blind Deconvolution Algorithm for Deblurring a Single PSP/TSP Image of Rotating Surfaces. Sensors, 2018, 18, 3075.	2.1	12
26	Experimental Study of the Interaction between Rotor Wake and a Cylinder in Hover. , 2018, , .		3
27	Characterizing Wave Propagation in an Unsteady Transonic Wind Tunnel. , 2018, , .		2
28	Data Processing Tools for Dynamic Pressure-Sensitive Paint. , 2017, , .		12
29	Range and Endurance Estimation for Low- <i>Re</i> Electric UAS. , 2017, , .		0
30	Effects of Roughness on the Performance of Fluidic Oscillators. , 2017, , .		19
31	Investigation of Crossflow Interaction of an Oscillating Jet. , 2017, , .		23
32	Impingement Heat Transfer Characteric of a Sweeping Jet. , 2017, , .		18
33	Experimental and Numerical Investigation of Sweeping Jet Film Cooling. , 2017, , .		11
34	Aerodynamic Parameter Estimation for Derived Angle-of-Attack Systems. , 2017, , .		3
35	Asymmetric distributions in pressure/load fluctuation levels during blade-vortex interactions. Journal of Fluids and Structures, 2017, 68, 58-71.	1.5	19
36	Blade Element Momentum Modeling of Low-Reynolds Electric Propulsion Systems. Journal of Aircraft, 2017, 54, 163-176.	1.7	39

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37	Pressure Field of a Yawed Aspect Ratio 1 Circular Cylinder. , 2017, , .		1
38	INTERNAL FLOW PHYSICS OF A FLUIDIC OSCILLATOR SPRAY IN THE TRANSITION REGIME. Atomization and Sprays, 2016, 26, 673-686.	0.3	13
39	Dynamic Mode Decomposition of Fast Pressure Sensitive Paint Data. Sensors, 2016, 16, 862.	2.1	38
40	Transient wall-jet flowing over a circular cylinder. Experiments in Fluids, 2016, 57, 1.	1.1	5
41	Global surface pressure measurements of static and dynamic stall on a wind turbine airfoil at low Reynolds number. Experiments in Fluids, 2016, 57, 1.	1.1	29
42	Comparison of Blur Elimination Techniques for PSP Images of Rotating Surfaces. , 2016, , .		8
43	Measuring Surface Pressures on Rotor Blades Using Pressure-Sensitive Paint. AIAA Journal, 2016, 54, 206-215.	1.5	39
44	Frequency-Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. AIAA Journal, 2016, 54, 174-185.	1.5	36
45	Dynamic Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. , 2015, , .		6
46	Step Response Characteristics of Polymer/Ceramic Pressure-Sensitive Paint. Sensors, 2015, 15, 22304-22324.	2.1	27
47	Vortex dynamics during blade-vortex interactions. Physics of Fluids, 2015, 27, .	1.6	27
48	Drag Reduction on the 25-deg Ahmed Model Using Fluidic Oscillators. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	52
49	Investigation of the cylinder wake under spanwise periodic forcing with a segmented plasma actuator. Physics of Fluids, 2015, 27, .	1.6	24
50	Nanosecond Dielectric Barrier Discharge Plasma Actuator Flow Control of Compressible Dynamic Stall. , 2015, , .		8
51	Effect of Three-Dimensional Plasma Actuation on the Wake of a Circular Cylinder. AIAA Journal, 2015, 53, 958-967.	1.5	29
52	Time-Resolved Measurements of Cellular Separation on a Stalling Airfoil. , 2015, , .		5
53	The applications of pressure-sensitive paint in microfluidic systems. Microfluidics and Nanofluidics, 2015, 18, 739-753.	1.0	29
54	Flight Test Protocol for Electric Powered Small Unmanned Aerial Systems. , 2014, , .		4

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55	Single-shot temperature- and pressure-sensitive paint measurements on an unsteady helicopter blade. Experiments in Fluids, 2014, 55, 1.	1.1	51
56	Comparison of unsteady pressure fields on turrets with different surface features using pressure-sensitive paint. Experiments in Fluids, 2014, 55, 1.	1.1	50
57	Internal jet interactions in a fluidic oscillator at low flow rate. Experiments in Fluids, 2014, 55, 1.	1.1	44
58	Fast Pressure-Sensitive Paint for Flow and Acoustic Diagnostics. Annual Review of Fluid Mechanics, 2014, 46, 303-330.	10.8	241
59	Global Skin-Friction Diagnostics Based on Surface Mass-Transfer Visualizations. AIAA Journal, 2014, 52, 2369-2383.	1.5	14
60	Control of High Subsonic Cavity Flow Using Plasma Actuators. AIAA Journal, 2014, 52, 1542-1554.	1.5	37
61	Inverse Methods for Deblurring Pressure-Sensitive Paint Images of Rotating Surfaces. AIAA Journal, 2014, 52, 2045-2061.	1.5	22
62	Study of Unsteady Surface Pressure on a Turret via Pressure-Sensitive Paint. , 2013, , .		8
63	Thin-Wing Vibration Control Using Flexible Fins. AIAA Journal, 2013, 51, 2218-2230.	1.5	6
64	Temperature-Compensated Fast Pressure-Sensitive Paint. AIAA Journal, 2013, 51, 2420-2431.	1.5	54
65	The Optimum Wavelength of Spanwise Segmented Plasma Actuator Forcing of a Circular Cylinder Wake. , 2013, , .		5
66	The Comparison of Unsteady Pressure Field over Flat- and Conformal-Window Turrets using Pressure Sensitive Paint. , 2013, , .		5
67	A Review of Fluidic Oscillator Development and Application for Flow Control. , 2013, , .		90
68	Jet Interactions in a Feedback-Free Fluidic Oscillator at Low Flow Rate. , 2013, , .		8
69	The Estimation of the Unsteady Aerodynamic Force Applied to a Turret in Flight. , 2013, , .		7
70	Dynamic Calibrations for Fast-Response Porous Polymer/Ceramic Pressure-Sensitive Paint. , 2013, , .		18
71	Motion-deblurred, fast-response pressure-sensitive paint on a rotor in forward flight. Measurement Science and Technology, 2012, 23, 045303.	1.4	43
72	Study of the Wake of a Circular Cylinder under Spatially and Temporally Modulated Plasma Actuation. , 2012, , .		2

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73	Effect of Three-Dimensional Plasma Actuation on the Wake of a Circular Cylinder. , 2012, , .		6
74	Passive Trip Evaluation Using Infrared Thermography. , 2012, , .		10
75	Smartphone-Based Data Acquisition for an Undergraduate Course on Aircraft Flight Testing. , 2012, , .		1
76	Temperature-Compensated Fast Pressure-Sensitive Paint. , 2012, , .		2
77	Frequency Studies and Scaling Effects of Jet Interaction in a Feedback-Free Fluidic Oscillator. , 2012, , .		24
78	Unsteady Pressure-Sensitive Paint Measurements on an Articulated Model Helicopter in Forward Flight. , 2012, , .		3
79	Deployment of a Pressure Sensitive Paint System for Measuring Global Surface Pressures on Rotorcraft Blades in Simulated Forward Flight. , 2012, , .		10
80	Measurement Techniques for Shock Movement Capture on a NACA 0012 in Unsteady Compressible Flow. , 2012, , .		4
81	Comparison of Unsteady Pressure-Sensitive Paint Measurement Techniques. AIAA Journal, 2012, 50, 109-122.	1.5	25
82	Unsteady Compressible Flow on a NACA 0021 Airfoil. , 2011, , .		6
83	Modification of Transonic Blowdown Wind Tunnel to Produce Oscillating Freestream Mach Number. AIAA Journal, 2011, 49, 2555-2563.	1.5	26
84	Application of fast-responding pressure-sensitive paint to a hemispherical dome in unsteady transonic flow. Experiments in Fluids, 2011, 50, 1495-1505.	1.1	34
85	Unsteady surface signature of a pulsed vortex generator jet. Journal of Visualization, 2011, 14, 121-127.	1.1	6
86	Single-shot, lifetime-based pressure-sensitive paint for rotating blades. Measurement Science and Technology, 2011, 22, 085403.	1.4	53
87	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
88	Measurement of transient acoustic fields using a single-shot pressure-sensitive paint system. Review of Scientific Instruments, 2011, 82, 075112.	0.6	24
89	PSP Measurements on an Oscillating NACA 0012 Airfoil in Compressible Flow. , 2011, , .		11
90	Investigation of Side-View Mirror Flow-Induced Vibration Phenomena. , 2010, , .		1

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91	Development of a Two Layer Dual-luminophore Pressure Sensitive Paint for Unsteady Pressure Measurements. , 2010, , .		5
92	Integrated Optical Measurement Techniques for Investigation of Fluid-Structure Interactions. , 2009, , .		18
93	Variable-Frequency Fluidic Oscillator Driven by a Piezoelectric Bender. AIAA Journal, 2009, 47, 2717-2725.	1.5	34
94	Circular Cylinder Wake Control Using Spatially Distributed Plasma Forcing. , 2008, , .		19
95	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
96	Optical Method for Measuring Low Wall Shear Stresses Using Thermal Tufts. AIAA Journal, 2008, 46, 1088-1095.	1.5	2
97	A modified schlieren technique for micro flow visualization. Measurement Science and Technology, 2007, 18, N32-N34.	1.4	17
98	Microchannel Pressure Measurements Using Molecular Sensors. Journal of Microelectromechanical Systems, 2007, 16, 777-785.	1.7	43
99	Switching Behavior of a Plasma-Fluidic Actuator. , 2007, , .		24
100	Characterization of the Microfluidic Oscillator. AIAA Journal, 2007, 45, 568-576.	1.5	112
101	Flow visualization and pressure measurement in micronozzles. Journal of Visualization, 2007, 10, 281-288.	1.1	27
102	Molecular Sensors in Microturbine Measurement. , 2006, , 577.		4
103	Effect of Quenching Kinetics on Unsteady Response of Pressure-Sensitive Paint. AIAA Journal, 2006, 44, 634-645.	1.5	46
104	Pressure-sensitive paint as a distributed optical microphone array. Journal of the Acoustical Society of America, 2006, 119, 251-261.	0.5	58
105	Visualization of jet mixing in a fluidic oscillator. Journal of Visualization, 2005, 8, 169-176.	1.1	37
106	Variable-Frequency Fluidic Oscillator Driven by Piezoelectric Devices. , 2005, , .		6
107	Characterization of a Micro Fluidic Oscillator for Flow Control. , 2004, , .		24
108	Porous Pressure-Sensitive Paint for Measurement of Unsteady Pressures in Turbomachinery. , 2004, , .		48

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109	Effect of Quenching Kinetics on the Unsteady Response of Pressure-Sensitive Paint. , 2004, , .		0
110	Characterization of Hartmann Tube Flow with Porous Pressure-Sensitive Paint. , 2003, , .		15
111	Porous Pressure-Sensitive Paint for Characterizing Unsteady Flowfields. AIAA Journal, 2002, 40, 1094-1098.	1.5	62
112	Fluidic Oscillator as a Dynamic Calibration Tool. , 2002, , .		19
113	Performance Measurement and Wake Characteristics of a Model Rotor in Axial Flight. Journal of the American Helicopter Society, 1999, 44, 101-108.	0.5	32
114	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