

Marios Kotsonis

List of Publications by Year in descending order

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99
papers

1,807
citations

279798

23
h-index

302126

39
g-index

99
all docs

99
docs citations

99
times ranked

761
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of the body force field of plasma actuators. Journal Physics D: Applied Physics, 2011, 44, 045204.	2.8	134
2	Diagnostics for characterisation of plasma actuators. Measurement Science and Technology, 2015, 26, 092001.	2.6	133
3	Nanosecond-pulsed plasma actuation in quiescent air and laminar boundary layer. Journal Physics D: Applied Physics, 2014, 47, 105201.	2.8	75
4	Formation, evolution and scaling of plasma synthetic jets. Journal of Fluid Mechanics, 2018, 837, 147-181.	3.4	68
5	Fluctuations of angle of attack and lift coefficient and the resultant fatigue loads for a large Horizontal Axis Wind turbine. Renewable Energy, 2017, 114, 904-916.	8.9	66
6	Performance improvement of plasma actuators using asymmetric high voltage waveforms. Journal Physics D: Applied Physics, 2012, 45, 045204.	2.8	65
7	Steady and transient response of a laminar separation bubble to controlled disturbances. Journal of Fluid Mechanics, 2017, 813, 955-990.	3.4	62
8	Forcing mechanisms of dielectric barrier discharge plasma actuators at carrier frequency of 625 Hz. Journal of Applied Physics, 2011, 110, .	2.5	57
9	On the origin of spanwise vortex deformations in laminar separation bubbles. Journal of Fluid Mechanics, 2018, 841, 81-108.	3.4	52
10	Three-dimensional organisation of primary and secondary crossflow instability. Journal of Fluid Mechanics, 2016, 799, 200-245.	3.4	50
11	Plasma Synthetic Jet Actuators for Active Flow Control. Actuators, 2018, 7, 77.	2.3	47
12	Aeroacoustic design and characterization of the 3D-printed, open-jet, anechoic wind tunnel of Delft University of Technology. Applied Acoustics, 2020, 170, 107504.	3.3	46
13	Numerical Study of the Control of Tollmien-Schlichting Waves Using Plasma Actuators. AIAA Journal, 2013, 51, 2353-2364.	2.6	44
14	Conditioning of cross-flow instability modes using dielectric barrier discharge plasma actuators. Journal of Fluid Mechanics, 2017, 833, 164-205.	3.4	41
15	Experimental control of swept-wing transition through base-flow modification by plasma actuators. Journal of Fluid Mechanics, 2018, 844, .	3.4	39
16	Effect of Local DBD Plasma Actuation on Transition in a Laminar Separation Bubble. Flow, Turbulence and Combustion, 2017, 98, 195-216.	2.6	37
17	Control of vortex shedding from a blunt trailing edge using plasma actuators. Experimental Thermal and Fluid Science, 2013, 46, 199-210.	2.7	35
18	Response of a laminar separation bubble to impulsive forcing. Journal of Fluid Mechanics, 2017, 820, 633-666.	3.4	35

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19	Effect of external flow velocity on momentum transfer of dielectric barrier discharge plasma actuators. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	32
20	Effect of slotted exit orifice on performance of plasma synthetic jet actuator. <i>Experiments in Fluids</i> , 2017, 58, 1.	2.4	31
21	Interaction between plasma synthetic jet and subsonic turbulent boundary layer. <i>Physics of Fluids</i> , 2017, 29, .	4.0	31
22	Transition in a separation bubble under tonal and broadband acoustic excitation. <i>Journal of Fluid Mechanics</i> , 2018, 853, 1-36.	3.4	29
23	Airfoil flow separation control with plasma synthetic jets at moderate Reynolds number. <i>Experiments in Fluids</i> , 2018, 59, 1.	2.4	28
24	Experimental study on dielectric barrier discharge actuators operating in pulse mode. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	24
25	On the mechanical efficiency of dielectric barrier discharge plasma actuators. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	23
26	Influence of circulation on a rounded-trailing-edge airfoil using plasma actuators. <i>Experiments in Fluids</i> , 2014, 55, 1.	2.4	23
27	Effect of velocity ratio on the interaction between plasma synthetic jets and turbulent cross-flow. <i>Journal of Fluid Mechanics</i> , 2019, 865, 928-962.	3.4	22
28	Characterisation of plasma synthetic jet actuators in quiescent flow. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 335202.	2.8	21
29	Energy deposition characteristics of nanosecond dielectric barrier discharge plasma actuators: Influence of dielectric material. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	20
30	Secondary crossflow instability through global analysis of measured base flows. <i>Journal of Fluid Mechanics</i> , 2018, 846, 605-653.	3.4	20
31	Experimental and numerical characterization of a plasma actuator in continuous and pulsed actuation. <i>Sensors and Actuators A: Physical</i> , 2012, 187, 84-94.	4.1	19
32	Flow Control on a Transport Truck Side Mirror Using Plasma Actuators. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2015, 137, .	1.5	18
33	Experimental investigation on frequency characteristics of plasma synthetic jets. <i>Physics of Fluids</i> , 2017, 29, 115107.	4.0	17
34	Vortex merging in a laminar separation bubble under natural and forced conditions. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	17
35	Design and numerical investigation of swirl recovery vanes for the Fokker 29 propeller. <i>Chinese Journal of Aeronautics</i> , 2014, 27, 1128-1136.	5.3	15
36	Digital Humans for Virtual Assembly Evaluation. <i>Lecture Notes in Computer Science</i> , 2007, , 939-948.	1.3	15

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37	Electro-mechanical efficiency of plasma synthetic jet actuator driven by capacitive discharge. Journal Physics D: Applied Physics, 2016, 49, 455201.	2.8	14
38	Effect of dielectric barrier discharge plasma actuators on vortical structures in a mixing layer. Physics of Fluids, 2020, 32, .	4.0	14
39	Control of Natural Tollmien-Schlichting Waves using Dielectric Barrier Discharge Plasma Actuators. International Journal of Flow Control, 2015, 7, 37-54.	0.4	12
40	Design of a swept wing wind tunnel model for study of cross-flow instability. , 2015, , .		12
41	Conditioning of unsteady cross-flow instability modes using dielectric barrier discharge plasma actuators. Experimental Thermal and Fluid Science, 2018, 93, 305-318.	2.7	12
42	Influence of a Forward-Facing Step Surface Irregularity on Swept Wing Transition. AIAA Journal, 2020, 58, 5243-5253.	2.6	12
43	Receptivity of crossflow instability to discrete roughness amplitude and location. Journal of Fluid Mechanics, 2022, 939, .	3.4	12
44	Experimental Model-Based Estimation and Control of Natural Tollmien-Schlichting Waves. AIAA Journal, 2019, 57, 2344-2355.	2.6	11
45	Impact of a forward-facing step on the development of crossflow instability. Journal of Fluid Mechanics, 2021, 924, .	3.4	11
46	Realisation of plasma synthetic jet array with a novel sequential discharge. Sensors and Actuators A: Physical, 2017, 266, 314-317.	4.1	10
47	Analysis of local frequency response of flow to actuation: Application to the dielectric barrier discharge plasma actuator. Journal of Applied Physics, 2015, 118, .	2.5	9
48	Spanwise flow development within a laminar separation bubble under natural and forced transition. Experimental Thermal and Fluid Science, 2018, 96, 169-179.	2.7	9
49	Three-dimensional vortical structures generated by plasma synthetic jets in crossflow. Physics of Fluids, 2020, 32, .	4.0	9
50	Optimum isothermal surfaces that maximize heat transfer. International Journal of Heat and Mass Transfer, 2013, 63, 13-19.	4.8	8
51	Model reduction of parabolic PDEs using multivariate splines. International Journal of Control, 2019, 92, 175-190.	1.9	8
52	Three-Dimensional Development of Coherent Structures in a Two-Dimensional Laminar Separation Bubble. AIAA Journal, 2021, 59, 493-505.	2.6	8
53	Beat-Frequency-Operated Dielectric-Barrier Discharge Plasma Actuators for Virtual Wall Oscillations. AIAA Journal, 2021, 59, 763-767.	2.6	8
54	Plasma-Based Forcing Strategies for Control of Crossflow Instabilities. AIAA Journal, 2021, 59, 3406-3416.	2.6	8

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55	Reducing turbulent convective heat transfer with streamwise plasma vortex generators. Experimental Thermal and Fluid Science, 2022, 134, 110596.	2.7	8
56	Experimental Study on the Body Force Field of Dielectric Barrier Discharge Actuators. , 2010, , .		7
57	Disturbance introduced into a laminar Boundary Layer by a NS-DBD plasma actuator. , 2013, , .		7
58	Interaction of an off-surface cylinder with separated flow from a bluff body leading edge. Experimental Thermal and Fluid Science, 2015, 63, 91-105.	2.7	7
59	A two-parameter method for eN transition prediction. , 2011, , .		6
60	Localised estimation and control of linear instabilities in two-dimensional wall-bounded shear flows. Journal of Fluid Mechanics, 2017, 824, 818-865.	3.4	6
61	Effect of nanosecond-pulsed plasma actuation on a separated laminar flow. Experimental Thermal and Fluid Science, 2017, 81, 406-419.	2.7	6
62	Effect of Two-Dimensional Surface Irregularities on Swept Wing Transition: Forward Facing Steps. , 2018, , .		6
63	NS-DBD plasma actuation on a backward facing step. , 2014, , .		5
64	Induced Velocity and Density Gradients due to Nanosecond Plasma Actuation. AIAA Journal, 2016, 54, 3895-3902.	2.6	5
65	Airfoil Optimisation for DBD Plasma Actuator in a Wind Energy Environment: Design and Experimental Study. , 2017, , .		4
66	Airfoil Stall Hysteresis Control with DBD Plasma actuation. , 2017, , .		4
67	Towards laminar flow control on swept wings with AC-DBD plasma actuators as active roughness. , 2017, , .		4
68	Swept-Wing Transition Control Using AC-DBD Plasma Actuators. , 2018, , .		4
69	Pressure Output Feedback Control of Tollmienâ€™Schlichting Waves in Falknerâ€™Skan Boundary Layers. AIAA Journal, 2019, 57, 1538-1551.	2.6	4
70	Virtual wall oscillations forced by a DBD plasma actuator operating under beat frequency - a concept for turbulent drag reduction. , 2020, , .		4
71	Experimental Study on Airfoil Circulation Control using Plasma Actuators. , 2013, , .		3
72	Non-Uniform Inflow Effects on Propeller Performance. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
73	Modeling DBD Plasma Actuators in Integral Boundary Layer Formulation for Application in Panel Methods. , 2015, , .		3
74	Spatio-temporal characteristics of secondary instabilities in swept wing boundary layers. , 2016, , .		3
75	Effect of DBD plasma actuation on structures in a plane mixing layer. , 2020, , .		3
76	Mechanisms of interaction between stationary crossflow instabilities and forward-facing steps. , 2021, , .		3
77	Effects of actuation mode on plasma-induced spanwise flow oscillations. Journal Physics D: Applied Physics, 2022, 55, 205203.	2.8	3
78	Unsteady interaction of crossflow instability with a forward-facing step. Journal of Fluid Mechanics, 2022, 939, .	3.4	3
79	Direct numerical simulation of interaction between a stationary crossflow instability and forward-facing steps. Journal of Fluid Mechanics, 2022, 943, .	3.4	3
80	Numerical Study on Control of Tollmien-Schlichting Waves Using Plasma Actuators. , 2011, , .		2
81	Effect of dielectric material on thermal effect produced by ns-DBD plasma actuator. , 2014, , .		2
82	Plasma Actuation for Mitigation of Fluctuating Loads on Airfoils: An Experimental Study. Journal of Physics: Conference Series, 2020, 1618, 052067.	0.4	2
83	Plasma Assisted Aerodynamics for Transition Delay. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 219-224.	0.2	2
84	Secondary instabilities in swept-wing boundary layers: Direct Numerical Simulations and BiGlobal stability analysis. , 2022, , .		2
85	The effect of external flow velocity on the momentum transfer of DBD plasma actuators. , 2013, , .		1
86	Secondary Stability Analysis of Crossflow Vortices using BiGlobal Theory on PIV Base Flows. , 2017, , .		1
87	Cross-flow instabilities under plasma actuation: Design, commissioning and preliminary results of a new experimental facility. , 2021, , .		1
88	Experimental Investigation on Receptivity of Crossflow Instability to Discrete Roughness Amplitude and Location. , 2021, , .		1
89	Boundary layer state detection using piezoelectric sensors. Smart Materials and Structures, 2022, 31, 015014.	3.5	1
90	Cylinder in the vicinity of a bluff body leading edge. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
91	Spatio-Temporal Response of a Laminar Separation Bubble Under Impulsive Forcing. , 2016, , .		0
92	Tomographic PIV investigation of crossflow instability of swept wing boundary layers. , 2016, , .		0
93	Control of fluid flows using multivariate spline reduced order models. , 2016, , .		0
94	An Assessment of Flow Development in a Separation Bubble Subjected to Spanwise Modulated Disturbances using Particle Image Velocimetry. , 2018, , .		0
95	Crossflow Transition of a Swept-Wing Boundary Layer and its Sensitivity to Free-Stream Conditions and Surface Roughness. , 2019, , .		0
96	New pulsed jet using spark plasma discharge: Subsonic configuration. , 2020, , .		0
97	Active Control of Turbulent Convective Heat Transfer with Plasma Actuators. Springer Proceedings in Physics, 2021, , 21-27.	0.2	0
98	Laminar Boundary Layer Flow with DBD Plasma Actuation: A Similarity Equation. Lecture Notes in Computational Science and Engineering, 2017, , 63-76.	0.3	0
99	Experimental Investigation of Isolated Roughness Induced Transition in a Swept Wing Boundary Layer. , 2022, , .		0