

# 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	Boundary layer state detection using piezoelectric sensors. Smart Materials and Structures, 2022, 31, 015014.	3.5	1
2	Experimental Investigation of Isolated Roughness Induced Transition in a Swept Wing Boundary Layer. , 2022, , .		0
3	Secondary instabilities in swept-wing boundary layers: Direct Numerical Simulations and BiGlobal stability analysis. , 2022, , .		2
4	Reducing turbulent convective heat transfer with streamwise plasma vortex generators. Experimental Thermal and Fluid Science, 2022, 134, 110596.	2.7	8
5	Effects of actuation mode on plasma-induced spanwise flow oscillations. Journal Physics D: Applied Physics, 2022, 55, 205203.	2.8	3
6	Unsteady interaction of crossflow instability with a forward-facing step. Journal of Fluid Mechanics, 2022, 939, .	3.4	3
7	Receptivity of crossflow instability to discrete roughness amplitude and location. Journal of Fluid Mechanics, 2022, 939, .	3.4	12
8	Direct numerical simulation of interaction between a stationary crossflow instability and forward-facing steps. Journal of Fluid Mechanics, 2022, 943, .	3.4	3
9	Three-Dimensional Development of Coherent Structures in a Two-Dimensional Laminar Separation Bubble. AIAA Journal, 2021, 59, 493-505.	2.6	8
10	Mechanisms of interaction between stationary crossflow instabilities and forward-facing steps. , 2021, , .		3
11	Cross-flow instabilities under plasma actuation: Design, commissioning and preliminary results of a new experimental facility. , 2021, , .		1
12	Beat-Frequency-Operated Dielectric-Barrier Discharge Plasma Actuators for Virtual Wall Oscillations. AIAA Journal, 2021, 59, 763-767.	2.6	8
13	Impact of a forward-facing step on the development of crossflow instability. Journal of Fluid Mechanics, 2021, 924, .	3.4	11
14	Plasma-Based Forcing Strategies for Control of Crossflow Instabilities. AIAA Journal, 2021, 59, 3406-3416.	2.6	8
15	Experimental Investigation on Receptivity of Crossflow Instability to Discrete Roughness Amplitude and Location. , 2021, , .		1
16	Active Control of Turbulent Convective Heat Transfer with Plasma Actuators. Springer Proceedings in Physics, 2021, , 21-27.	0.2	0
17	New pulsed jet using spark plasma discharge: Subsonic configuration. , 2020, , .		0
18	Effect of DBD plasma actuation on structures in a plane mixing layer. , 2020, , .		3

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19	Influence of a Forward-Facing Step Surface Irregularity on Swept Wing Transition. AIAA Journal, 2020, 58, 5243-5253.	2.6	12
20	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
21	Plasma Actuation for Mitigation of Fluctuating Loads on Airfoils: An Experimental Study. Journal of Physics: Conference Series, 2020, 1618, 052067.	0.4	2
22	Three-dimensional vortical structures generated by plasma synthetic jets in crossflow. Physics of Fluids, 2020, 32, .	4.0	9
23	Virtual wall oscillations forced by a DBD plasma actuator operating under beat frequency - a concept for turbulent drag reduction. , 2020, , .		4
24	Effect of dielectric barrier discharge plasma actuators on vortical structures in a mixing layer. Physics of Fluids, 2020, 32, .	4.0	14
25	Pressure Output Feedback Control of Tollmienâ€“Schlichting Waves in Falknerâ€“Skan Boundary Layers. AIAA Journal, 2019, 57, 1538-1551.	2.6	4
26	Experimental Model-Based Estimation and Control of Natural Tollmienâ€“Schlichting Waves. AIAA Journal, 2019, 57, 2344-2355.	2.6	11
27	Effect of velocity ratio on the interaction between plasma synthetic jets and turbulent cross-flow. Journal of Fluid Mechanics, 2019, 865, 928-962.	3.4	22
28	Crossflow Transition of a Swept-Wing Boundary Layer and its Sensitivity to Free-Stream Conditions and Surface Roughness. , 2019, , .		0
29	Model reduction of parabolic PDEs using multivariate splines. International Journal of Control, 2019, 92, 175-190.	1.9	8
30	Vortex merging in a laminar separation bubble under natural and forced conditions. Physical Review Fluids, 2019, 4, .	2.5	17
31	On the origin of spanwise vortex deformations in laminar separation bubbles. Journal of Fluid Mechanics, 2018, 841, 81-108.	3.4	52
32	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
33	Experimental control of swept-wing transition through base-flow modification by plasma actuators. Journal of Fluid Mechanics, 2018, 844, .	3.4	39
34	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
35	Formation, evolution and scaling of plasma synthetic jets. Journal of Fluid Mechanics, 2018, 837, 147-181.	3.4	68
36	Plasma Synthetic Jet Actuators for Active Flow Control. Actuators, 2018, 7, 77.	2.3	47

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37	Airfoil flow separation control with plasma synthetic jets at moderate Reynolds number. Experiments in Fluids, 2018, 59, 1.	2.4	28
38	Effect of Two-Dimensional Surface Irregularities on Swept Wing Transition: Forward Facing Steps. , 2018, , .		6
39	Secondary crossflow instability through global analysis of measured base flows. Journal of Fluid Mechanics, 2018, 846, 605-653.	3.4	20
40	Swept-Wing Transition Control Using AC-DBD Plasma Actuators. , 2018, , .		4
41	An Assessment of Flow Development in a Separation Bubble Subjected to Spanwise Modulated Disturbances using Particle Image Velocimetry. , 2018, , .		0
42	Transition in a separation bubble under tonal and broadband acoustic excitation. Journal of Fluid Mechanics, 2018, 853, 1-36.	3.4	29
43	Effect of Local DBD Plasma Actuation on Transition in a Laminar Separation Bubble. Flow, Turbulence and Combustion, 2017, 98, 195-216.	2.6	37
44	Airfoil Optimisation for DBD Plasma Actuator in a Wind Energy Environment: Design and Experimental Study. , 2017, , .		4
45	Airfoil Stall Hysteresis Control with DBD Plasma actuation. , 2017, , .		4
46	Secondary Stability Analysis of Crossflow Vortices using BiGlobal Theory on PIV Base Flows. , 2017, , .		1
47	Steady and transient response of a laminar separation bubble to controlled disturbances. Journal of Fluid Mechanics, 2017, 813, 955-990.	3.4	62
48	Towards laminar flow control on swept wings with AC-DBD plasma actuators as active roughness. , 2017, , .		4
49	Effect of slotted exit orifice on performance of plasma synthetic jet actuator. Experiments in Fluids, 2017, 58, 1.	2.4	31
50	Interaction between plasma synthetic jet and subsonic turbulent boundary layer. Physics of Fluids, 2017, 29, .	4.0	31
51	Response of a laminar separation bubble to impulsive forcing. Journal of Fluid Mechanics, 2017, 820, 633-666.	3.4	35
52	Realisation of plasma synthetic jet array with a novel sequential discharge. Sensors and Actuators A: Physical, 2017, 266, 314-317.	4.1	10
53	Conditioning of cross-flow instability modes using dielectric barrier discharge plasma actuators. Journal of Fluid Mechanics, 2017, 833, 164-205.	3.4	41
54	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

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55	Fluctuations of angle of attack and lift coefficient and the resultant fatigue loads for a large Horizontal Axis Wind turbine. <i>Renewable Energy</i> , 2017, 114, 904-916.	8.9	66
56	Experimental investigation on frequency characteristics of plasma synthetic jets. <i>Physics of Fluids</i> , 2017, 29, 115107.	4.0	17
57	Effect of nanosecond-pulsed plasma actuation on a separated laminar flow. <i>Experimental Thermal and Fluid Science</i> , 2017, 81, 406-419.	2.7	6
58	Laminar Boundary Layer Flow with DBD Plasma Actuation: A Similarity Equation. <i>Lecture Notes in Computational Science and Engineering</i> , 2017, , 63-76.	0.3	0
59	Induced Velocity and Density Gradients due to Nanosecond Plasma Actuation. <i>AIAA Journal</i> , 2016, 54, 3895-3902.	2.6	5
60	Characterisation of plasma synthetic jet actuators in quiescent flow. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 335202.	2.8	21
61	Electro-mechanical efficiency of plasma synthetic jet actuator driven by capacitive discharge. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 455201.	2.8	14
62	Three-dimensional organisation of primary and secondary crossflow instability. <i>Journal of Fluid Mechanics</i> , 2016, 799, 200-245.	3.4	50
63	Spatio-Temporal Response of a Laminar Separation Bubble Under Impulsive Forcing. , 2016, , .		0
64	Tomographic PIV investigation of crossflow instability of swept wing boundary layers. , 2016, , .		0
65	Spatio-temporal characteristics of secondary instabilities in swept wing boundary layers. , 2016, , .		3
66	Control of fluid flows using multivariate spline reduced order models. , 2016, , .		0
67	Control of Natural Tollmien-Schlichting Waves using Dielectric Barrier Discharge Plasma Actuators. <i>International Journal of Flow Control</i> , 2015, 7, 37-54.	0.4	12
68	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
69	Analysis of local frequency response of flow to actuation: Application to the dielectric barrier discharge plasma actuator. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	9
70	Interaction of an off-surface cylinder with separated flow from a bluff body leading edge. <i>Experimental Thermal and Fluid Science</i> , 2015, 63, 91-105.	2.7	7
71	Modeling DBD Plasma Actuators in Integral Boundary Layer Formulation for Application in Panel Methods. , 2015, , .		3
72	Diagnostics for characterisation of plasma actuators. <i>Measurement Science and Technology</i> , 2015, 26, 092001.	2.6	133

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73	Energy deposition characteristics of nanosecond dielectric barrier discharge plasma actuators: Influence of dielectric material. Journal of Applied Physics, 2015, 118, .	2.5	20
74	Design of a swept wing wind tunnel model for study of cross-flow instability. , 2015, , .		12
75	Effect of dielectric material on thermal effect produced by ns-DBD plasma actuator. , 2014, , .		2
76	Cylinder in the vicinity of a bluff body leading edge. , 2014, , .		0
77	NS-DBD plasma actuation on a backward facing step. , 2014, , .		5
78	Effect of external flow velocity on momentum transfer of dielectric barrier discharge plasma actuators. Journal of Applied Physics, 2014, 116, .	2.5	32
79	Nanosecond-pulsed plasma actuation in quiescent air and laminar boundary layer. Journal Physics D: Applied Physics, 2014, 47, 105201.	2.8	75
80	Influence of circulation on a rounded-trailing-edge airfoil using plasma actuators. Experiments in Fluids, 2014, 55, 1.	2.4	23
81	Design and numerical investigation of swirl recovery vanes for the Fokker 29 propeller. Chinese Journal of Aeronautics, 2014, 27, 1128-1136.	5.3	15
82	Numerical Study of the Control of Tollmienâ€™Schlichting Waves Using Plasma Actuators. AIAA Journal, 2013, 51, 2353-2364.	2.6	44
83	Control of vortex shedding from a blunt trailing edge using plasma actuators. Experimental Thermal and Fluid Science, 2013, 46, 199-210.	2.7	35
84	Optimum isothermal surfaces that maximize heat transfer. International Journal of Heat and Mass Transfer, 2013, 63, 13-19.	4.8	8
85	The effect of external flow velocity on the momentum transfer of DBD plasma actuators. , 2013, , .		1
86	Disturbance introduced into a laminar Boundary Layer by a NS-DBD plasma actuator. , 2013, , .		7
87	Experimental Study on Airfoil Circulation Control using Plasma Actuators. , 2013, , .		3
88	Non-Uniform Inflow Effects on Propeller Performance. , 2013, , .		3
89	Performance improvement of plasma actuators using asymmetric high voltage waveforms. Journal Physics D: Applied Physics, 2012, 45, 045204.	2.8	65
90	Experimental and numerical characterization of a plasma actuator in continuous and pulsed actuation. Sensors and Actuators A: Physical, 2012, 187, 84-94.	4.1	19

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91	A two-parameter method for eN transition prediction. , 2011, , .		6
92	Numerical Study on Control of Tollmien-Schlichting Waves Using Plasma Actuators. , 2011, , .		2
93	Forcing mechanisms of dielectric barrier discharge plasma actuators at carrier frequency of 625 Hz. Journal of Applied Physics, 2011, 110, .	2.5	57
94	Measurement of the body force field of plasma actuators. Journal Physics D: Applied Physics, 2011, 44, 045204.	2.8	134
95	On the mechanical efficiency of dielectric barrier discharge plasma actuators. Applied Physics Letters, 2011, 98, .	3.3	23
96	Experimental study on dielectric barrier discharge actuators operating in pulse mode. Journal of Applied Physics, 2010, 108, .	2.5	24
97	Experimental Study on the Body Force Field of Dielectric Barrier Discharge Actuators. , 2010, , .		7
98	Plasma Assisted Aerodynamics for Transition Delay. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 219-224.	0.2	2
99	Digital Humans for Virtual Assembly Evaluation. Lecture Notes in Computer Science, 2007, , 939-948.	1.3	15