

Jonas P Moeck

List of Publications by Year in descending order

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101
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docs citations

101
times ranked

886
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced-order modelling of thermoacoustic instabilities in can-annular combustors. Journal of Sound and Vibration, 2022, 526, 116808.	3.9	8
2	Effect of an Azimuthal Mean Flow on the Structure and Stability of Thermoacoustic Modes in an Annular Combustor Model With Electroacoustic Feedback. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	6
3	Analysis of Thermoacoustic Modes in Can-Annular Combustors Using Effective Bloch-Type Boundary Conditions. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	14
4	A Non-Compact Effective Impedance Model for Can-to-Can Acoustic Communication: Analysis and Optimization of Damping Mechanisms. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	7
5	Response of Autoignition-Stabilized Flames to One-Dimensional Disturbances: Intrinsic Response. Journal of Engineering for Gas Turbines and Power, 2021, , .	1.1	1
6	Perturbation theory of nonlinear, non-self-adjoint eigenvalue problems: Semisimple eigenvalues. Journal of Sound and Vibration, 2021, 507, 116150.	3.9	3
7	Actuation efficiency of nanosecond repetitively pulsed discharges for plasma-assisted swirl flames at pressures up to 3 bar. Journal Physics D: Applied Physics, 2021, 54, 075208.	2.8	17
8	Thermoacoustic modes of intrinsic and acoustic origin and their interplay with exceptional points. Combustion and Flame, 2020, 211, 83-95.	5.2	35
9	Intrinsic thermoacoustic modes in an annular combustion chamber. Combustion and Flame, 2020, 214, 251-262.	5.2	18
10	Fuel and Equivalence Ratio Effects on Transfer Functions of Premixed Swirl Flames. Journal of Propulsion and Power, 2020, 36, 271-284.	2.2	7
11	Degenerate perturbation theory in thermoacoustics: high-order sensitivities and exceptional points. Journal of Fluid Mechanics, 2020, 903, .	3.4	8
12	Perturbation theory of nonlinear, non-self-adjoint eigenvalue problems: Simple eigenvalues. Journal of Sound and Vibration, 2020, 473, 115200.	3.9	13
13	Solution of Thermoacoustic Eigenvalue Problems With a Noniterative Method. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	1.1	14
14	Effects of Nonlinear Modal Interactions on the Thermoacoustic Stability of Annular Combustors. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	24
15	Effects of Asymmetry on Thermoacoustic Modes in Annular Combustors: A Higher-Order Perturbation Study. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	23
16	Nonlinear thermoacoustic mode synchronization in annular combustors. Proceedings of the Combustion Institute, 2019, 37, 5343-5350.	3.9	34
17	The Influence of the Initial Temperature on DDT Characteristics in a Valveless PDC. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2019, , 185-196.	0.3	2
18	Effect of pressure on the transfer functions of premixed methane and propane swirl flames. Combustion and Flame, 2018, 193, 272-282.	5.2	39

#	ARTICLE	IF	CITATIONS
19	Numerical Study on the Reduction of NOx Emissions From Pulse Detonation Combustion. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	16
20	Methods for the Calculation of Thermoacoustic Stability Boundaries and Monte Carlo-Free Uncertainty Quantification. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	14
21	Detonation initiation in pipes with a single obstacle for mixtures of hydrogen and oxygen-enriched air. Combustion and Flame, 2018, 198, 290-304.	5.2	16
22	Exceptional points in the thermoacoustic spectrum. Journal of Sound and Vibration, 2018, 433, 124-128.	3.9	30
23	Low-frequency sound generation by modulated repetitively pulsed nanosecond plasma discharges. Journal Physics D: Applied Physics, 2018, 51, 305203.	2.8	10
24	Transfer functions of laminar premixed flames subjected to forcing by acoustic waves, AC electric fields, and non-thermal plasma discharges. Proceedings of the Combustion Institute, 2017, 36, 4183-4192.	3.9	46
25	An Acoustic Time-of-Flight Approach for Unsteady Temperature Measurements: Characterization of Entropy Waves in a Model Gas Turbine Combustor. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	13
26	Swirl Flame Response to Simultaneous Axial and Transverse Velocity Fluctuations. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	13
27	Acoustic Damper Placement and Tuning for Annular Combustors: An Adjoint-Based Optimization Study. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	23
28	Measurement and modeling of the generation and the transport of entropy waves in a model gas turbine combustor. International Journal of Spray and Combustion Dynamics, 2017, 9, 299-309.	1.0	26
29	An analytical study of the flame dynamics of a transversely forced asymmetric two-dimensional Bunsen flame. Combustion Theory and Modelling, 2017, 21, 976-995.	1.9	13
30	Numerical Study on the Reduction of NOx Emissions From Pulse Detonation Combustion. , 2017, , .		3
31	Acoustic Combustor Forcing by Unsteady Air Injection Into a Nozzle With High Subsonic Mean Flow. , 2017, , .		0
32	An Onion Peeling Reconstruction of the Spatial Characteristics of Entropy Waves in a Model Gas Turbine Combustor. , 2017, , .		1
33	Limit Cycles of Spinning Thermoacoustic Modes in Annular Combustors: A Bloch-Wave and Adjoint-Perturbation Approach. , 2017, , .		7
34	Methods for the Calculation of Thermoacoustic Stability Margins and Monte Carlo-Free Uncertainty Quantification. , 2017, , .		2
35	A compact shock-focusing geometry for detonation initiation: Experiments and adjoint-based variational data assimilation. Combustion and Flame, 2017, 183, 144-156.	5.2	42
36	Analysis of the step responses of laminar premixed flames to forcing by non-thermal plasma. Proceedings of the Combustion Institute, 2017, 36, 4145-4153.	3.9	20

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37	Influence of air flow parameters on nanosecond repetitively pulsed discharges in a pin-annular electrode configuration. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 155205.	2.8	7
38	Efficient Computation of Thermoacoustic Modes in Industrial Annular Combustion Chambers Based on Bloch-Wave Theory. <i>Journal of Engineering for Gas Turbines and Power</i> , 2016, 138, .	1.1	41
39	Acoustic Damper Placement and Tuning for Annular Combustors: An Adjoint-Based Optimization Study. , 2016, , .		2
40	Weakly nonlinear analysis of thermoacoustic instabilities in annular combustors. <i>Journal of Fluid Mechanics</i> , 2016, 805, 52-87.	3.4	52
41	An Acoustic Time-of-Flight Approach for Unsteady Temperature Measurements: Characterization of Entropy Waves in a Model Gas Turbine Combustor. , 2016, , .		5
42	Control of the Precessing Vortex Core by Open and Closed-Loop Forcing in the Jet Core. , 2016, , .		6
43	Swirl Flame Response to Simultaneous Axial and Transverse Velocity Fluctuations. , 2016, , .		0
44	Efficient Computation of Thermoacoustic Modes in Annular Combustion Chambers Based on Bloch-Wave Theory. , 2015, , .		5
45	Effect of initial flow velocity on the flame propagation in obstructed channels. , 2015, , .		2
46	Stability Criteria for Standing and Spinning Waves in Annular Combustors. , 2015, , .		9
47	Amplitude-Dependent Flow Field and Flame Response to Axial and Tangential Velocity Fluctuations. <i>Journal of Engineering for Gas Turbines and Power</i> , 2015, 137, .	1.1	16
48	Adaptive Control of Mixture Profiles for a Combustion Tube. , 2015, , .		0
49	Response of a swirl-stabilized flame to simultaneous perturbations in equivalence ratio and velocity at high oscillation amplitudes. <i>Combustion and Flame</i> , 2015, 162, 1046-1062.	5.2	67
50	Characterization and Modeling of a Spinning Thermoacoustic Instability in an Annular Combustor Equipped With Multiple Matrix Injectors. <i>Journal of Engineering for Gas Turbines and Power</i> , 2015, 137, .	1.1	59
51	State-space realization of a describing function. <i>Nonlinear Dynamics</i> , 2015, 82, 9-28.	5.2	12
52	An Experimental Study of Different Obstacle Types for Flame Acceleration and DDT. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 265-279.	0.3	3
53	Optical Measurement of Local and Global Transfer Functions for Equivalence Ratio Fluctuations in a Turbulent Swirl Flame. <i>Journal of Engineering for Gas Turbines and Power</i> , 2014, 136, .	1.1	12
54	Correction to the Table of Contents for Part I of the <i>Trans. on Plasma Science</i> October Issue. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 4042-4042.	1.3	0

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55	Characterization and Modeling of a Spinning Thermoacoustic Instability in an Annular Combustor Equipped With Multiple Matrix Injectors. , 2014, , .		2
56	Effect of Nanosecond Glow Discharges on a Lean Premixed V-Flame*. IEEE Transactions on Plasma Science, 2014, 42, 4040-4041.	1.3	7
57	Dynamics of Swirling Flames. Annual Review of Fluid Mechanics, 2014, 46, 147-173.	25.0	321
58	Stabilization of a Methane-Air Swirl Flame by Rotating Nanosecond Spark Discharges. IEEE Transactions on Plasma Science, 2014, 42, 2412-2413.	1.3	12
59	Effect of Nanosecond Glow Discharges on a Lean Premixed V-Flame. IEEE Transactions on Plasma Science, 2014, 42, 2562-2563.	1.3	2
60	Nonlinear Instability Analysis for Partially Premixed Swirl Flames. Combustion Science and Technology, 2014, 186, 713-736.	2.3	25
61	Swirl Flame Response to Traveling Acoustic Waves. , 2014, , .		5
62	Tomographic reconstruction of heat release rate perturbations induced by helical modes in turbulent swirl flames. Experiments in Fluids, 2013, 54, 1.	2.4	58
63	Sensitivity of swirling flows to small changes in the swirler geometry. Comptes Rendus - Mecanique, 2013, 341, 211-219.	2.1	31
64	Flame dynamics of a variable swirl number system and instability control. Combustion and Flame, 2013, 160, 1729-1742.	5.2	135
65	Effect of Plasma Discharges on Nitric Oxide Emissions in a Premixed Flame. Journal of Propulsion and Power, 2013, 29, 748-751.	2.2	25
66	Self-Sustained Instabilities in an Annular Combustor Coupled by Azimuthal and Longitudinal Acoustic Modes. , 2013, , .		33
67	Control of combustion dynamics in a swirl-stabilized combustor with nanosecond repetitively pulsed discharges. , 2013, , .		32
68	Prediction of Pressure Amplitudes of Self-Excited Thermoacoustic Instabilities for a Partially Premixed Swirl-Flame. , 2013, , .		3
69	Optical Measurement of Local and Global Transfer Functions for Equivalence Ratio Fluctuations in a Turbulent Swirl Flame. , 2013, , .		2
70	Open-Loop Control of Combustion Instabilities and the Role of the Flame Response to Two-Frequency Forcing. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	1.1	15
71	Modeling the Response of Premixed Flame Transfer Functions - Key Elements and Experimental Proofs. , 2012, , .		5
72	Amplitude-Dependent Flow Field and Flame Response to Axial and Tangential Velocity Fluctuations. , 2012, , .		2

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73	Nonlinear Interactions of Multiple Linearly Unstable Thermoacoustic Modes. International Journal of Spray and Combustion Dynamics, 2012, 4, 1-27.	1.0	39
74	Thermoacoustic Stability Analysis of a Kerosene-Fueled Lean Direct Injection Combustor Employing Acoustically and Optically Measured Transfer Matrices. , 2012, , .		1
75	Feedback control of unstable thermoacoustic modes in an annular Rijke tube. Control Engineering Practice, 2012, 20, 770-782.	5.5	45
76	Nonlinear interaction between a precessing vortex core and acoustic oscillations in a turbulent swirling flame. Combustion and Flame, 2012, 159, 2650-2668.	5.2	198
77	Progress and challenges in swirling flame dynamics. Comptes Rendus - Mecanique, 2012, 340, 758-768.	2.1	63
78	Investigation of Precessing-Vortex-Core“Flame Interaction Based on Tomographic Reconstruction Techniques. , 2012, , .		0
79	Advanced algorithms for gradient estimation in one- and two-parameter extremum seeking controllers. Journal of Process Control, 2012, 22, 700-709.	3.3	83
80	Open-Loop Control of Combustion Instabilities and the Role of the Flame Response to Two-Frequency Forcing. , 2011, , .		2
81	An Experimental Investigation of the Nonlinear Response of an Atmospheric Swirl-Stabilized Premixed Flame. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	1.1	48
82	An Experimental Investigation of the Nonlinear Response of an Atmospheric Swirl-Stabilized Premixed Flame. , 2010, , .		8
83	Comparison of Linear Stability Analysis With Experiments by Actively Tuning the Acoustic Boundary Conditions of a Premixed Combustor. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	1.1	10
84	Thermoacoustic Instabilities in an Annular Rijke Tube. , 2010, , .		22
85	Modeling the Fuel/Air Mixing to Control the Pressure Pulsations and NOx“Emissions in a Lean Premixed Combustor. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 307-321.	0.3	1
86	A Zero-Mach Solver and Reduced Order Acoustic Representations for Modeling and Control of Combustion Instabilities. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 291-306.	0.3	1
87	Dynamic Mixing Model of a Premixed Combustor and Validation with Flame Response Measurements. , 2009, , .		4
88	Assessment of Different Actuator Concepts for Acoustic Boundary Control of a Premixed Combustor. Journal of Engineering for Gas Turbines and Power, 2009, 131, .	1.1	3
89	Experimental Validation of Linear Stability Analysis in a Premixed Combustor by Actively Tuning Its Acoustic Boundary Conditions. , 2009, , .		0
90	Model Based Control of Emissions and Pulsations in a Premixed Combustor Using Fuel Staging. , 2009, , .		7

#	ARTICLE	IF	CITATIONS
91	Localization of Sound Sources in Combustion Chambers. , 2009, , 269-291.		0
92	Active control of the acoustic boundary conditions of combustion test rigs. Journal of Sound and Vibration, 2008, 318, 678-701.	3.9	54
93	Model Predictive Control of Thermoacoustic Instabilities in a Swirl-Stabilized Combustor. , 2008, , .		4
94	Subcritical thermoacoustic instabilities in a premixed combustor. , 2008, , .		26
95	Assessment of Different Actuator Concepts for Acoustic Boundary Control of a Premixed Combustor. , 2008, , .		1
96	Impedance Tuning of a Premixed Combustor Using Active Control. , 2007, , 607.		3
97	Two-Parameter Extremum Seeking for Control of Thermoacoustic Instabilities and Characterization of Linear Growth. , 2007, , .		17
98	An Active Control Scheme for Tuning Acoustic Impedances. , 2007, , .		2
99	Active control of combustion instability using fuel flow modulation. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 4090015-4090016.	0.2	2
100	Phase-Shift Control of Combustion Instability Using (Combined) Secondary Fuel Injection and Acoustic Forcing. , 2007, , 408-421.		11
101	Characterization and Control of Lean Blowout Using Periodically Generated Flame Balls. , 2006, , 293.		4