

Adam M Steinberg

List of Publications by Year in descending order

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81
papers

2,079
citations

257450

24
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243625

44
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docs citations

81
times ranked

929
citing authors

#	ARTICLE	IF	CITATIONS
1	Flowâ€“flame interactions causing acoustically coupled heat release fluctuations in a thermo-acoustically unstable gas turbine model combustor. <i>Combustion and Flame</i> , 2010, 157, 2250-2266.	5.2	268
2	Formation and flame-induced suppression of the precessing vortex core in a swirl combustor: Experiments and linear stability analysis. <i>Combustion and Flame</i> , 2015, 162, 3100-3114.	5.2	191
3	Measurements of turbulent premixed flame dynamics using cinema stereoscopic PIV. <i>Experiments in Fluids</i> , 2008, 44, 985-999.	2.4	109
4	Parametric study of vortex structures and their dynamics in swirl-stabilized combustion. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 3117-3125.	3.9	86
5	Experimental study of flame-hole reignition mechanisms in a turbulent non-premixed jet flame using sustained multi-kHz PIV and crossed-plane OH PLIF. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 1663-1672.	3.9	81
6	Coupled dynamics of lift-off and precessing vortex core formation in swirl flames. <i>Combustion and Flame</i> , 2016, 168, 228-239.	5.2	77
7	Straining and wrinkling processes during turbulenceâ€“premixed flame interaction measured using temporally-resolved diagnostics. <i>Combustion and Flame</i> , 2009, 156, 2285-2306.	5.2	75
8	Structure and stabilization of hydrogen jet flames in cross-flows. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 1499-1507.	3.9	68
9	High-speed tomographic PIV and OH PLIF measurements in turbulent reactive flows. <i>Experiments in Fluids</i> , 2014, 55, 1.	2.4	68
10	Effects of Flow Structure Dynamics on Thermoacoustic Instabilities in Swirl-Stabilized Combustion. <i>AIAA Journal</i> , 2012, 50, 952-967.	2.6	67
11	Thermo-acoustic velocity coupling in a swirl stabilized gas turbine model combustor. <i>Combustion and Flame</i> , 2014, 161, 3166-3180.	5.2	64
12	Dynamics and mechanisms of pressure, heat release rate, and fuel spray coupling during intermittent thermoacoustic oscillations in a model aeronautical combustor at elevated pressure. <i>Combustion and Flame</i> , 2017, 185, 319-334.	5.2	56
13	Simultaneous 10 kHz TPIV, OH PLIF, and CH ₂ O PLIF measurements of turbulent flame structure and dynamics. <i>Experiments in Fluids</i> , 2016, 57, 1.	2.4	54
14	Structure and dynamics of highly turbulent premixed combustion. <i>Progress in Energy and Combustion Science</i> , 2021, 85, 100900.	31.2	52
15	Experimental analysis of thermo-acoustic instabilities in a generic gas turbine combustor by phase-correlated PIV, chemiluminescence, and laser Raman scattering measurements. <i>Experiments in Fluids</i> , 2015, 56, 1.	2.4	47
16	Influence of combustion on principal strain-rate transport in turbulent premixed flames. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1287-1294.	3.9	45
17	Relationship between local reaction rate and flame structure in turbulent premixed flames from simultaneous 10 kHz TPIV, OH PLIF, and CH ₂ O PLIF. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 1835-1841.	3.9	41
18	Enstrophy transport in swirl combustion. <i>Journal of Fluid Mechanics</i> , 2019, 876, 715-732.	3.4	41

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19	Autoignition of hydrogen/nitrogen jets in vitiated air crossflows at different pressures. Proceedings of the Combustion Institute, 2013, 34, 3185-3192.	3.9	40
20	Statistics and dynamics of turbulenceâ€“flame alignment in premixed combustion. Combustion and Flame, 2012, 159, 2576-2588.	5.2	38
21	Temporal evolution of flame stretch due to turbulence and the hydrodynamic instability. Proceedings of the Combustion Institute, 2009, 32, 1713-1721.	3.9	35
22	The role of strain rate, local extinction, and hydrodynamic instability on transition between attached and lifted swirl flames. Combustion and Flame, 2019, 199, 267-278.	5.2	34
23	Development and evaluation of gappy-POD as a data reconstruction technique for noisy PIV measurements in gas turbine combustors. Experiments in Fluids, 2016, 57, 1.	2.4	33
24	Fast and robust volumetric refractive index measurement by unified background-oriented schlieren tomography. Experiments in Fluids, 2020, 61, 1.	2.4	32
25	Soot formation and flame structure in swirl-stabilized turbulent non-premixed methane combustion. Combustion and Flame, 2019, 209, 303-312.	5.2	26
26	Non-stationary local thermoacoustic phase relationships in a gas turbine combustor. Proceedings of the Combustion Institute, 2017, 36, 3873-3880.	3.9	23
27	Using Machine Learning to Construct Velocity Fields from OH-PLIF Images. Combustion Science and Technology, 2022, 194, 93-116.	2.3	23
28	Auto-ignition and flame stabilization of hydrogen/natural gas/nitrogen jets in a vitiated cross-flow at elevated pressure. International Journal of Hydrogen Energy, 2013, 38, 16441-16452.	7.1	22
29	Autoignition Limits of Hydrogen at Relevant Reheat Combustor Operating Conditions. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	1.1	20
30	Assessment of chemical scalars for heat release rate measurement in highly turbulent premixed combustion including experimental factors. Combustion and Flame, 2018, 194, 485-506.	5.2	19
31	Flow-Field and Flame Dynamics of a Gas Turbine Model Combustor During Transition Between Thermo-Acoustically Stable and Unstable States. , 2010, , .		17
32	Experimental data-based reduced-order model for analysis and prediction of flame transition in gas turbine combustors. Combustion Theory and Modelling, 2019, 23, 994-1020.	1.9	17
33	Stretch-rate relationships for turbulent premixed combustion LES subgrid models measured using temporally resolved diagnostics. Combustion and Flame, 2010, 157, 1422-1435.	5.2	15
34	Investigation of the Syngas Flame Characteristics at Elevated Pressures Using Optical and Laser Diagnostic Methods. Flow, Turbulence and Combustion, 2012, 89, 275-294.	2.6	15
35	Flame- and flow-conditioned vorticity transport in premixed swirl combustion. Proceedings of the Combustion Institute, 2021, 38, 2949-2956.	3.9	15
36	Linear absorption tomography with velocimetry (LATV) for multiparameter measurements in high-speed flows. Optics Express, 2020, 28, 32676.	3.4	13

#	ARTICLE	IF	CITATIONS
37	Experimental Investigation of a Generic, Fuel Flexible Reheat Combustor at Gas Turbine Relevant Operating Conditions. , 2010, , .		11
38	Extracting information overlap in simultaneous OH-PLIF and PIV fields with neural networks. Proceedings of the Combustion Institute, 2021, 38, 6241-6249.	3.9	11
39	Physical space analysis of cross-scale turbulent kinetic energy transfer in premixed swirl flames. Combustion and Flame, 2021, 229, 111403.	5.2	11
40	Megahertz-rate background-oriented schlieren tomography in post-detonation blasts. Applied Optics, 2022, 61, 2444.	1.8	10
41	Effect of $B^{3+}-N^{3+}$ on YAG:Dy thermographic phosphor luminescence. Optics Letters, 2014, 39, 6166.	3.3	9
42	Statistics and Dynamics of Intermittent Boundary Layer Flashback in Swirl Flames. Journal of Propulsion and Power, 2020, 36, 940-949.	2.2	8
43	Effect of Internozzle Spacing on Lean Blow-Off of a Linear Multinozzle Combustor. Journal of Propulsion and Power, 2020, 36, 540-550.	2.2	8
44	Cross-frequency coupling during thermoacoustic oscillations in a pressurized aeronautical gas turbine model combustor. Proceedings of the Combustion Institute, 2021, 38, 6105-6113.	3.9	8
45	Reaction zone stratification in piloted highly-turbulent fuel-lean premixed jets. Combustion and Flame, 2019, 208, 327-329.	5.2	7
46	Blowoff and Reattachment Dynamics of a Linear Multinozzle Combustor. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	7
47	Attached and lifted flame stabilization in a linear array of swirl injectors. Proceedings of the Combustion Institute, 2021, 38, 6279-6287.	3.9	6
48	Structural response of different Lewis number premixed flames interacting with a toroidal vortex. Proceedings of the Combustion Institute, 2019, 37, 1911-1918.	3.9	5
49	Bayesian framework for THz-TDS plasma diagnostics. Optics Express, 2021, 29, 4887.	3.4	5
50	Thermo-acoustic Coupling in Swirl-Stabilized Flames with Helical Vortices. , 2013, , .		4
51	Analysis of intermittent thermoacoustic oscillations in an aeronautical gas turbine combustor. , 2017, , .		4
52	Flame Extinction and Re-Ignition in a Swirl Stabilized Prevaporized Liquid Fuel Flame Close to Lean Blow-Out. , 2020, , .		4
53	Reynolds averaged enstrophy transport budgets measured in premixed swirl flames using $\hat{1}/4$ -TPIV.. , 2018, , .		3
54	Data-Driven Reduction and Decomposition via Time-Axis Clustering. , 2020, , .		3

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55	Assessment of the Capability of Terahertz Time-Domain Spectroscopy as a Plasma Diagnostic. , 2020, , .		3
56	Tomographic PIV Characterization of the Near field Topology of the Reacting Jet in Crossflow. , 2020, , .		3
57	Turbulence-Flame Interactions - The Mechanisms of Flame Strain and Wrinkling. , 2008, , .		2
58	Influence of flow-structure dynamics on thermo-acoustic instabilities in oscillating swirl flames. , 2011, , .		2
59	High Spatial Resolution 3D Fluid Velocimetry by Tomographic Particle Flow Velocimetry. , 2019, , .		2
60	High Speed Imaging of Flame Structure and Dynamic Processes in Swirl Stabilized Prevaporized Liquid Fuel Flames. , 2019, , .		2
61	Effect of inter-nozzle spacing on lean blowoff performance of a linear multi-nozzle combustor. , 2019, , .		2
62	Bayesian Optimization of a TDLAS Array for Mass Capture Measurement. , 2021, , .		2
63	Analysis of Flow-Flame Interactions in a Gas Turbine Model Combustor Under Thermo-Acoustically Stable and Unstable Conditions. , 2010, , .		1
64	Development and evaluation of Gappy-POD for noisy PIV measurements in gas turbine combustors. , 2016, , .		1
65	A Semi-Empirical Time-Lag Model for Predicting Limit-Cycle Thermoacoustic Amplitudes in an Aeronautical Gas Turbine Combustor. , 2017, , .		1
66	Influence of Blade Loading Profile on Wake Dynamics in High-Pressure Turbine Cascades. Journal of Turbomachinery, 2018, 140, .	1.7	1
67	Multi-Scalar Measurements of Premixed Flames in Extreme Turbulence Using Raman/Rayleigh Diagnostics. , 2019, , .		1
68	Auto-ignition of near-ambient temperature H ₂ /air mixtures during flame-vortex interaction. Proceedings of the Combustion Institute, 2019, 37, 2425-2432.	3.9	1
69	Experimental Measurement of Cross-Scale Kinetic Energy Transfer in Premixed Swirl Flames. , 2020, , .		1
70	A functional error analysis of differential optical flow methods. Experiments in Fluids, 2021, 62, 1.	2.4	1
71	Noninvasive THz-TDS measurements of plasma bounded and optically shielded by Hall thruster wall material. Plasma Sources Science and Technology, 2021, 30, 075027.	3.1	1
72	Experimental Analysis of Conditional Kinetic Energy Transfer Between Scales in Swirl Flames. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
73	Diagnostic requirements for the development of low-emission, fuel-flexible gas turbine combustors. , 2012, , .		0
74	Measurement of 3D Rayleigh Index fields in helically-perturbed swirl flames using doubly-phase-conditioned chemiluminescence tomography. , 2015, , .		0
75	Dynamics of Flame Lift-Off in Biogas Swirl Flames. , 2015, , .		0
76	Measurement of local flame speeds in the thickened flamelet regime using simultaneous 10 kHz TPIV and OH/CH ₂ O PLIF. , 2015, , .		0
77	Initial Growth and Development of Thermoacoustic Instabilities in a Gas Turbine Combustor. , 2018, , .		0
78	Limits and Intermittency of Swirl Flame Lift-Off Copuled with Hydrodynamic Instability. , 2018, , .		0
79	Experimental Analysis of Thermoacoustic Oscillations in a Model Aeronautical Gas Turbine Combustor at Realistic Conditions. , 2019, , .		0
80	Influence of Combustion on Flow-Structures and Cross-Frequency Coupling in a Pressurized Gas Turbine Model Combustor. , 2020, , .		0
81	Experimental Characterization of a Lean Prevaporized Premixed Combustor for Supersonic Transport Applications. , 2022, , .		0