Antonio Attili

List of Publications by Year
in descending order

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59	1,151	361045	414034
papers	citations	20 h-index	32 g-index

61	61	61	609
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical investigation and assessment of flamelet-based models for the prediction of pulverized solid fuel homogeneous ignition and combustion. Combustion and Flame, 2022, 235, 111693.	2.8	11
2	Numerical analysis of very rich propagating spherical flames: Soot formation and its impact on the determination of laminar flame speed. Combustion and Flame, 2022, 237, 111860.	2.8	2
3	Intrinsic instabilities in premixed hydrogen flames: Parametric variation of pressure, equivalence ratio, and temperature. Part 1 - Dispersion relations in the linear regime. Combustion and Flame, 2022, 240, 111935.	2.8	19
4	Intrinsic instabilities in premixed hydrogen flames: parametric variation of pressure, equivalence ratio, and temperature. Part 2 â€“ Nonâ€linear regime and flame speed enhancement. Combustion and Flame, 2022, 240, 111936.	2.8	33
5	Synergistic interactions of thermodiffusive instabilities and turbulence in lean hydrogen flames. Combustion and Flame, 2022, 244, 112254.	2.8	43
6	Reynolds number scaling of burning rates in spherical turbulent premixed flames. Journal of Fluid Mechanics, 2021, 906, .	1.4	13
7	The effect of pressure on the hydrodynamic stability limit of premixed flames. Proceedings of the Combustion Institute, 2021, 38, 1973-1981.	2.4	28
8	Turbulent flame speed and reaction layer thickening in premixed jet flames at constant Karlovitz and increasing Reynolds numbers. Proceedings of the Combustion Institute, 2021, 38, 2939-2947.	2.4	23
9	Sensitivity analysis of an unsteady char particle combustion. Fuel, 2021, 287, 119738.	3.4	1
10	Modeling subfilter soot-turbulence interactions in Large Eddy Simulation: An a priori study. Proceedings of the Combustion Institute, 2021, 38, 2783-2790.	2.4	8
11	Adjoint-based sensitivity analysis of steady char burnout. Combustion Theory and Modelling, 2021, 25, 96-120.	1.0	8
12	A new modeling approach for mixture fraction statistics based on dissipation elements. Proceedings of the Combustion Institute, 2021, 38, 2681-2689.	2.4	10
13	A-priori and a-posteriori studies of a direct moment closure approach for turbulent combustion using DNS data of a premixed flame. Proceedings of the Combustion Institute, 2021, 38, 3003-3011.	2.4	4
14	Numerical Simulations and Experiments of Ignition of Solid Particles in a Laminar Burner: Effects of Slip Velocity and Particle Swelling. Flow, Turbulence and Combustion, 2021, 106, 515-531.	1.4	2
15	Internal layers in turbulent free-shear flows. Physical Review Fluids, 2021, 6, .	1.0	6
16	Which factors influence the extent of indoor transmission of SARS-CoV-2? A rapid evidence review. Journal of Global Health, 2021, 11, 10002.	1.2	18
17	Data-driven subfilter modelling of thermo-diffusively unstable hydrogenâ€“air premixed flames. Combustion Theory and Modelling, 2021, 25, 1064-1085.	1.0	8
18	Homogeneous ignition and volatile combustion of single solid fuel particles in air and oxy-fuel conditions. Fuel, 2021, 291, 120101.	3.4	21

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19	Unsupervised Data Analysis of Direct Numerical Simulation of a Turbulent Flame via Local Principal Component Analysis and Procustes Analysis. Advances in Intelligent Systems and Computing, 2021, , 460-469.	0.5	1
20	Dissipation element analysis of non-premixed jet flames. Journal of Fluid Mechanics, 2020, 905, .	1.4	8
21	Gradient Trajectory Analysis of the Burning Rate in Turbulent Premixed Jet Flames. Combustion Science and Technology, 2020, 192, 2189-2207.	1.2	1
22	DNS-driven analysis of the Flamelet/Progress Variable model assumptions on soot inception, growth, and oxidation in turbulent flames. Combustion and Flame, 2020, 214, 437-449.	2.8	14
23	A DNS study of the impact of gravity on spherically expanding laminar premixed flames. Combustion and Flame, 2020, 216, 412-425.	2.8	16
24	Pressure-induced Hydrodynamic Instability in Premixed Methane-Air Slot Flames. Combustion Science and Technology, 2020, 192, 1998-2009.	1.2	14
25	Numerical study of coal particle ignition in air and oxy-atmosphere. Proceedings of the Combustion Institute, 2019, 37, 2867-2874.	2.4	34
26	On the statistics of flame stretch in turbulent premixed jet flames in the thin reaction zone regime at varying Reynolds number. Proceedings of the Combustion Institute, 2019, 37, 2451-2459.	2.4	53
27	Characteristic patterns of thermodiffusively unstable premixed lean hydrogen flames. Proceedings of the Combustion Institute, 2019, 37, 1879-1886.	2.4	60
28	Statistics of Scalar Dissipation and Strain/Vorticity/Scalar Gradient Alignment in Turbulent Nonpremixed Jet Flames. Flow, Turbulence and Combustion, 2019, 103, 625-642.	1.4	3
29	Experimental and numerical study of soot formation in counterflow diffusion flames of gasoline surrogate components. Combustion and Flame, 2019, 210, 159-171.	2.8	40
30	Dissipation Element Analysis of Turbulent Premixed Jet Flames. Combustion Science and Technology, 2019, 191, 1677-1692.	1.2	7
31	Experimental investigation of soot evolution in a turbulent non-premixed prevaporized toluene flame. Proceedings of the Combustion Institute, 2019, 37, 849-857.	2.4	19
32	Numerical investigation of coal particle stream ignition in oxy-atmosphere. Fuel, 2019, 241, 477-487.	3.4	20
33	Numerically accurate computational techniques for optimal estimator analyses of multi-parameter models. Combustion Theory and Modelling, 2018, 22, 480-504.	1.0	15
34	Comprehensive Validation of Skeletal Mechanism for Turbulent Premixed Methaneâ€“Air Flame Simulations. Journal of Propulsion and Power, 2018, 34, 153-160.	1.3	25
35	Self-similar scaling of pressurised sooting methane/air coflow flames at constant Reynolds and Grashof numbers. Combustion and Flame, 2018, 196, 300-313.	2.8	5
36	Direct Numerical Simulations of NOx formation in spatially developing turbulent premixed Bunsen flames with mixture inhomogeneity. , 2017, , .		2

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37	Effects of hydrodynamics and mixing on soot formation and growth in laminar coflow diffusion flames at elevated pressures. Combustion and Flame, 2017, 181, 39-53.	2.8	31
38	Simulation and analysis of the soot particle size distribution in a turbulent nonpremixed flame. Combustion and Flame, 2017, 178, 35-45.	2.8	26
39	Scale interactions in a mixing layer â€“ the role of the large-scale gradients. Journal of Fluid Mechanics, 2016, 791, 154-173.	1.4	17
40	Effects of non-unity Lewis number of gas-phase species in turbulent nonpremixed sooting flames. Combustion and Flame, 2016, 166, 192-202.	2.8	51
41	Direct Numerical Simulation of Turbulent Lean Methane-Air Bunsen Flames with Mixture Inhomogeneities. , 2016, , .		2
42	Scale dependence of the alignment between strain rate and rotation in turbulent shear flow. Physical Review Fluids, 2016, 1, .	1.0	11
43	DamkÃ¶hler number effects on soot formation and growth in turbulent nonpremixed flames. Proceedings of the Combustion Institute, 2015, 35, 1215-1223.	2.4	47
44	Lagrangian Analysis of Mixing and Soot Transport in a Turbulent Jet Flame. ERCOFTAC Series, 2015, , 503-509.	0.1	1
45	Advancing predictive models for particulate formation in turbulent flames via massively parallel direct numerical simulations. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130324.	1.6	27
46	Simulation of aerosol nucleation and growth in a turbulent mixing layer. Physics of Fluids, 2014, 26, .	1.6	19
47	Formation, growth, and transport of soot in a three-dimensional turbulent non-premixed jet flame. Combustion and Flame, 2014, 161, 1849-1865.	2.8	124
48	Statistics of the turbulent/non-turbulent interface in a spatially developing mixing layer. Journal of Turbulence, 2014, 15, 555-568.	0.5	47
49	Application of a robust and efficient Lagrangian particle scheme to soot transport in turbulent flames. Computers and Fluids, 2013, 84, 164-175.	1.3	24
50	Fluctuations of a passive scalar in a turbulent mixing layer. Physical Review E, 2013, 88, 033013.	0.8	22
51	Statistics and scaling of turbulence in a spatially developing mixing layer at ReÎ» = 250. Physics of Fluids, 2012, 24, .	1.6	65
52	Structure function scaling in a Re_{Î»}= 250 turbulent mixing layer. Journal of Physics: Conference Series, 2011, 318, 042001.	0.3	3
53	Comparison Between Different Pressurant Gases for Ignition Transient of P80 SRM. , 2009, , .		4
54	Numerical Simulation of Multiphase Flows in Solid Rocket Motors. , 2009, , .		7

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55	Post-Firing Analysis of Z23 SRM Ignition Transient. , 2009, , .		4
56	Two Approaches for Condensed-Phase Modeling in Solid Rocket Motor Flows. , 2008, , .		0
57	Internal Ballistics and Dynamics of VEGA Launcher Solid Rocket Motors During Ignition Transient: Firing Test Predictions and Post Firing Analysis. , 2007, , .		10
58	Ignition Transient Induced Loads Control Strategy for VEGA Launcher' Solid Rocket Motors: the "Zefiro9" Static Firing Test Predictions and Post Firing Analysis. Zefiro9 Static Firing Test Predictions and Post-firing Analysis. , 2006, , .		11
59	Predictive Data-Driven Model Based on Generative Adversarial Network for Premixed Turbulence-Combustion Regimes. Combustion Science and Technology, 0, , 1-24.	1.2	2