Benedicte Cuenot

List of Publications by Year
in descending order

123	4,069	101543	138484
papers	citations	36 h-index	58 g-index

126	126	126	2122
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The thickened flame approach for non-premixed combustion: Principles and implications for turbulent combustion modeling. Combustion and Flame, 2022, 239, 111702.	5.2	7
2	Chemical modeling for methane oxy-combustion in Liquid Rocket Engines. Acta Astronautica, 2022, 190, 98-111.	3.2	15
3	Plasma assisted combustion of methane-air mixtures: Validation and reduction. Combustion and Flame, 2022, 240, 111990.	5.2	25
4	Prediction of Wall Heat Fluxes in a Rocket Engine with Conjugate Heat Transfer Based on Large-Eddy Simulation. Entropy, 2022, 24, 256.	2.2	3
5	Experimental and LES investigation of ignition of a spinning combustion technology combustor under relevant operating conditions. Combustion and Flame, 2022, 242, 112204.	5.2	4
6	A reduced chemical mechanism for the simulation of electrified methane/air flames. Combustion and Flame, 2022, 244, 112246.	5.2	3
7	Numerical study of multicomponent spray flame propagation. Proceedings of the Combustion Institute, 2021, 38, 3201-3211.	3.9	12
8	Numerical study of a polydisperse spray counterflow diffusion flame. Proceedings of the Combustion Institute, 2021, 38, 3175-3182.	3.9	3
9	A statistical model to predict ignition probability. Combustion and Flame, 2021, 225, 180-195.	5.2	16
10	Hydrophilic properties of soot particles exposed to OH radicals: A possible new mechanism involved in the contrail formation. Proceedings of the Combustion Institute, 2021, 38, 6441-6450.	3.9	3
11	Study of inter-sector spray flame propagation in a linear arrangement of swirled burners. Proceedings of the Combustion Institute, 2021, 38, 6299-6308.	3.9	3
12	Large-Eddy Simulation of Flame Dynamics During the Ignition of a Swirling Injector Unit and Comparison With Experiments. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	4
13	Static mesh adaptation for reliable large eddy simulation of turbulent reacting flows. Physics of Fluids, 2021, 33, .	4.0	11
14	The impact of chemical modelling on turbulent premixed flame acoustics. Journal of Fluid Mechanics, 2021, 915, .	3.4	9
15	2D radial-azimuthal particle-in-cell benchmark for E Ã— B discharges. Plasma Sources Science and Technology, 2021, 30, 075002.	3.1	44
16	Improved color-gradient method for lattice Boltzmann modeling of two-phase flows. Physics of Fluids, 2021, 33, 082110.	4.0	10
17	Turbulent flame-wall interactions for flames diluted by hot combustion products. Combustion and Flame, 2021, 230, 111432.	5.2	14
18	Stochastic forcing for sub-grid scale models in wall-modeled large-eddy simulation. Physics of Fluids, 2021, 33, .	4.0	9

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19	A fully automatic procedure for the analytical reduction of chemical kinetics mechanisms for Computational Fluid Dynamics applications. Fuel, 2021, 303, 121247.	6.4	29
20	Analysis of the spray flame structure in a lab-scale burner using Large Eddy Simulation and Discrete Particle Simulation. Combustion and Flame, 2020, 212, 25-38.	5.2	26
21	Design optimization of an heat exchanger using Gaussian process. International Journal of Heat and Mass Transfer, 2020, 150, 119264.	4.8	12
22	A generic and self-adapting method for flame detection and thickening in the thickened flame model. Combustion and Flame, 2020, 212, 448-458.	5.2	12
23	On the mechanisms of flame kernel extinction or survival during aeronautical ignition sequences: Experimental and numerical analysis. Combustion and Flame, 2020, 222, 70-84.	5.2	23
24	DNS of spark ignition using Analytically Reduced Chemistry including plasma kinetics. Proceedings of the Combustion Institute, 2019, 37, 5057-5064.	3.9	8
25	Flameâ€“wall interaction effects on the flame root stabilization mechanisms of a doubly-transcritical LO2/LCH4 cryogenic flame. Proceedings of the Combustion Institute, 2019, 37, 5147-5154.	3.9	11
26	A joint experimental and numerical study of ignition in a spray burner. Proceedings of the Combustion Institute, 2019, 37, 5047-5055.	3.9	25
27	Lagrangian tracking of soot particles in LES of gas turbines. Proceedings of the Combustion Institute, 2019, 37, 5429-5436.	3.9	22
28	Effect of non-zero relative velocity on the flame speed of two-phase laminar flames. Proceedings of the Combustion Institute, 2019, 37, 3393-3400.	3.9	8
29	2D axial-azimuthal particle-in-cell benchmark for low-temperature partially magnetized plasmas. Plasma Sources Science and Technology, 2019, 28, 105010.	3.1	72
30	Large Eddy Simulation of Combustion and Heat Transfer in a Single Element GCH4/GOx Rocket Combustor. Flow, Turbulence and Combustion, 2019, 103, 699-730.	2.6	18
31	Introducing chemical kinetics into Large Eddy Simulation of turbulent reacting flows. Computer Aided Chemical Engineering, 2019, 45, 899-936.	0.5	2
32	Including analytically reduced chemistry (ARC) in CFD applications. Acta Astronautica, 2019, 158, 444-459.	3.2	19
33	Large Eddy Simulation of a single-started helically ribbed tube with heat transfer. International Journal of Heat and Mass Transfer, 2019, 132, 961-969.	4.8	20
34	Impact of direct integration of Analytically Reduced Chemistry in LES of a sooting swirled non-premixed combustor. Combustion and Flame, 2018, 191, 270-286.	5.2	31
35	Including real fuel chemistry in LES of turbulent spray combustion. Combustion and Flame, 2018, 193, 397-416.	5.2	49
36	Prediction of flame structure and pollutant formation of Sandia flame D using Large Eddy Simulation with direct integration of chemical kinetics. Combustion and Flame, 2018, 188, 180-198.	5.2	26

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37	LES study on mixing and combustion in a Direct Injection Spark Ignition engine. Oil and Gas Science and Technology, 2018, 73, 32.	1.4	0
38	Large-Eddy Simulation of Kerosene Spray Ignition in a Simplified Aeronautic Combustor. Flow, Turbulence and Combustion, 2018, 101, 603-625.	2.6	7
39	Experimental and numerical analysis of a turbulent spray flame structure. Proceedings of the Combustion Institute, 2017, 36, 2567-2575.	3.9	53
40	Large Eddy Simulation of an industrial gas turbine combustor using reduced chemistry with accurate pollutant prediction. Proceedings of the Combustion Institute, 2017, 36, 3817-3825.	3.9	59
41	Study of flame response to transverse acoustic modes from the LES of a 42-injector rocket engine. Proceedings of the Combustion Institute, 2017, 36, 2633-2639.	3.9	39
42	A criterion to distinguish autoignition and propagation applied to a lifted methaneâ€“air jet flame. Proceedings of the Combustion Institute, 2017, 36, 1637-1644.	3.9	59
43	IMPROOF: Integrated Model Guided Process Optimization of Steam Cracking Furnaces. Smart Innovation, Systems and Technologies, 2017, , 589-600.	0.6	2
44	Gas Turbines and Engine Simulations. Advances in Chemical Engineering, 2016, , 273-385.	0.9	4
45	Coupled Heat Transfers in a Refinery Furnace in View of Fouling Prediction. Journal of Heat Transfer, 2016, 138, .	2.1	4
46	Effect of pressure on hydrogen/oxygen coupled flameâ€“wall interaction. Combustion and Flame, 2016, 168, 409-419.	5.2	19
47	Exploration of combustion instability triggering using Large Eddy Simulation of a multiple injector liquid rocket engine. Combustion and Flame, 2016, 169, 129-140.	5.2	156
48	Numerical Investigation of Flow and Combustion in a Single-Element GCH₄/GOX Rocket Combustor: Chemistry Modeling and Turbulence-Combustion Interaction. , 2016, , .		9
49	Numerical Investigation of Flow and Combustion in a Single-Element GCH4/GOX Rocket Combustor: A comparative LES study. , 2016, , .		9
50	Numerical Investigation of Flow and Combustion in a Single Element GCH4/Gox Rocket Combustor. , 2016, , .		15
51	Multiphase Flow Large-Eddy Simulation Study of the Fuel Split Effects on Combustion Instabilities in an Ultra-Low-NOx Annular Combustor. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	3
52	A new phenomenological model to predict drop size distribution in Large-Eddy Simulations of airblast atomizers. International Journal of Multiphase Flow, 2016, 80, 29-42.	3.4	33
53	Numerical Benchmark for High-Reynolds-Number Supercritical Flows with Large Density Gradients. AIAA Journal, 2016, 54, 1445-1460.	2.6	58
54	Large-Eddy Simulation of Ignition and Flame Propagation in a Trisector Combustor. Journal of Propulsion and Power, 2016, 32, 345-359.	2.2	4

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55	Multiphase Flow LES Study of the Fuel Split Effects on Combustion Instabilities in an Ultra Low-NOx Annular Combustor. , 2015, , .		4
56	Towards predictive data-driven simulations of wildfire spread â€“ Part II: Ensemble Kalman Filter for the state estimation of a front-tracking simulator of wildfire spread. Natural Hazards and Earth System Sciences, 2015, 15, 1721-1739.	3.6	39
57	Numerical Modeling of Soot Production in Aero-Engine Combustors Using Large Eddy Simulations. , 2015, , .		10
58	Large eddy simulations of multiple transcritical coaxial flames submitted to a high-frequency transverse acoustic modulation. Proceedings of the Combustion Institute, 2015, 35, 1461-1468.	3.9	51
59	Ignition probability of a partially premixed burner using LES. Proceedings of the Combustion Institute, 2015, 35, 3133-3141.	3.9	31
60	Large Eddy Simulations of the ignition sequence of an annular multiple-injector combustor. Proceedings of the Combustion Institute, 2015, 35, 3159-3166.	3.9	77
61	Towards predictive data-driven simulations of wildfire spread â€“ Part I: Reduced-cost Ensemble Kalman Filter based on a Polynomial Chaos surrogate model for parameter estimation. Natural Hazards and Earth System Sciences, 2014, 14, 2951-2973.	3.6	70
62	Flame propagation in aeronautical swirled multi-burners: Experimental and numerical investigation. Combustion and Flame, 2014, 161, 2387-2405.	5.2	62
63	A Methodology for Soot Prediction Including Thermal Radiation in Complex Industrial Burners. Flow, Turbulence and Combustion, 2014, 92, 947-970.	2.6	17
64	Computations of soot formation in ethylene/air counterflow diffusion flames and its interaction with radiation. Comptes Rendus - Mecanique, 2013, 341, 238-246.	2.1	8
65	Regional-scale simulations of wildland fire spread informed by real-time flame front observations. Proceedings of the Combustion Institute, 2013, 34, 2641-2647.	3.9	43
66	Data assimilation applied to combustion. Comptes Rendus - Mecanique, 2013, 341, 266-276.	2.1	16
67	Soot prediction by Large-Eddy Simulation of complex geometry combustion chambers. Comptes Rendus - Mecanique, 2013, 341, 230-237.	2.1	3
68	Impact of the chemical description on a Large Eddy Simulation of a lean partially premixed swirled flame. Comptes Rendus - Mecanique, 2013, 341, 247-256.	2.1	32
69	Using LES to predict ignition sequences and ignition probability of turbulent two-phase flames. Combustion and Flame, 2013, 160, 1191-1207.	5.2	48
70	Large Eddy Simulation of Reactive Two-Phase Flow in an Aeronautical Multipoint Burner. Flow, Turbulence and Combustion, 2013, 90, 449-469.	2.6	30
71	Accounting for Polydispersion in the Eulerian Large Eddy Simulation of the Two-Phase Flow in an Aeronautical-type Burner. Flow, Turbulence and Combustion, 2013, 90, 545-581.	2.6	15
72	Experimental and Numerical Analysis of an Ignition Sequence in a Multiple-Injectors Burner. , 2013, , .		13

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73	Systematic definition of progress variables and Intrinsically Low-Dimensional, Flamelet Generated Manifolds for chemistry tabulation. Combustion and Flame, 2012, 159, 1197-1204.	5.2	43
74	Simulation of a supersonic hydrogenâ€“air autoignition-stabilized flame using reduced chemistry. Combustion and Flame, 2012, 159, 1779-1790.	5.2	66
75	Analysis of the interaction between turbulent combustion and thermal radiation using unsteady coupled LES/DOM simulations. Combustion and Flame, 2012, 159, 1605-1618.	5.2	59
76	The Flamelet Model for Non-Premixed Combustion. Fluid Mechanics and Its Applications, 2011, , 43-61.	0.2	9
77	Effects of radiative heat transfer on the structure of turbulent supersonic channel flow. Journal of Fluid Mechanics, 2011, 677, 417-444.	3.4	26
78	Analysis of Radiation Modeling for Turbulent Combustion: Development of a Methodology to Couple Turbulent Combustion and Radiative Heat Transfer in LES. Journal of Heat Transfer, 2011, 133, .	2.1	20
79	The Flame Structure of a Turbulent Supercritical Hydrogen/Oxygen Flow Behind a Splitter Plate. , 2011, , .		5
80	Fuel injection model for Eulerâ€“Euler and Eulerâ€“Lagrange large-eddy simulations of an evaporating spray inside an aeronautical combustor. International Journal of Multiphase Flow, 2011, 37, 514-529.	3.4	104
81	Eulerian and Lagrangian spray simulations of an aeronautical multipoint injector. Proceedings of the Combustion Institute, 2011, 33, 2099-2107.	3.9	27
82	Numerical investigation of destabilization of supercritical round turbulent jets using large eddy simulation. , 2011, , .		11
83	Non-Intrusive In-Service PMD Measurements: A Novel Approach Based on Coherent Detection. , 2011, , .		0
84	Unsteady coupling of Navierâ€“Stokes and radiative heat transfer solvers applied to an anisothermal multicomponent turbulent channel flow. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 295-301.	2.3	25
85	A model for the injection boundary conditions in the context of 3D simulation of Diesel Spray: Methodology and validation. Fuel, 2010, 89, 219-228.	6.4	31
86	Large Eddy Simulation of Stable Supersonic Jet Impinging on Flat Plate. AIAA Journal, 2010, 48, 2325-2338.	2.6	79
87	Large-Eddy Simulation of Supercritical-Pressure Round Jets. AIAA Journal, 2010, 48, 2133-2144.	2.6	130
88	Large Eddy Simulation of a Two-Phase Reacting Flow in an Experimental Burner. ERCOFTAC Series, 2010, , 345-351.	0.1	2
89	COUPLING RADIATION MODELLING WITH TURBULENT COMBUSTION IN LARGE EDDY SIMULATION. , 2010, , .		0
90	Discrete Ordinates and Monte Carlo Methods for Radiative Transfer Simulation Applied to Computational Fluid Dynamics Combustion Modeling. Journal of Heat Transfer, 2009, 131, .	2.1	18

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91	Large eddy simulation of laser ignition and compressible reacting flow in a rocket-like configuration. Combustion and Flame, 2009, 156, 1166-1180.	5.2	79
92	DNS and modeling of the turbulent boundary layer over an evaporating liquid film. International Journal of Heat and Mass Transfer, 2009, 52, 6028-6041.	4.8	12
93	Eulerian and Lagrangian Large-Eddy Simulations of an evaporating two-phase flow. Comptes Rendus - Mecanique, 2009, 337, 458-468.	2.1	28
94	Large-Eddy Simulation of transcritical flows. Comptes Rendus - Mecanique, 2009, 337, 528-538.	2.1	78
95	The structure of multidimensional strained flames under transcritical conditions. Comptes Rendus - Mecanique, 2009, 337, 517-527.	2.1	6
96	Parameterization of plume chemistry into largeâ€scale atmospheric models: Application to aircraft NO_x emissions. Journal of Geophysical Research, 2009, 114, .	3.3	43
97	Coupled Atmosphereâ€Wildland Fire Modelling. Journal of Advances in Modeling Earth Systems, 2009, 1, .	3.8	43
98	Recent developments in 40 Gsymbol/s coherent WDM. , 2009, , .		3
99	Investigation of Two-Fluid Methods for Large Eddy Simulation of Spray Combustion in Gas Turbines. Flow, Turbulence and Combustion, 2008, 80, 291-321.	2.6	92
100	LES of an ignition sequence in a gas turbine engine. Combustion and Flame, 2008, 154, 2-22.	5.2	257
101	Large eddy simulations of turbulent reacting flows in real burners: the status and challenges. Journal of Physics: Conference Series, 2008, 125, 012029.	0.4	6
102	Ship plume dispersion rates in convective boundary layers for chemistry models. Atmospheric Chemistry and Physics, 2008, 8, 4841-4853.	4.9	31
103	Transmission Impairments for 298.2Gbit/s Coherent WDM over 600km of Standard Single Mode Fibre. , 2007, , .		0
104	40 Gbit/s WDM all-optical regeneration using a fibre-based device. , 2007, , .		0
105	DNS study of stabilization of turbulent triple flames by hot gases. Proceedings of the Combustion Institute, 2007, 31, 1649-1656.	3.9	26
106	Optical regeneration using self-phase modulation and quasi-continuous filtering. IEEE Photonics Technology Letters, 2006, 18, 1350-1352.	2.5	5
107	Numerical simulations and modeling of turbulent combustion. EAS Publications Series, 2006, 21, 147-148.	0.3	0
108	Widely Tunable Modelocked Multiwavelength Ring Laser. , 2006, , .		1

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109	Interaction of a premixed flame with a liquid fuel film on a wall. Proceedings of the Combustion Institute, 2005, 30, 259-266.	3.9	31
110	Direct numerical simulation of turbulence/radiation interaction in premixed combustion systems. Proceedings of the Combustion Institute, 2005, 30, 639-646.	3.9	58
111	Comparison of three spatial differencing schemes in discrete ordinates method using three-dimensional unstructured meshes. International Journal of Thermal Sciences, 2005, 44, 851-864.	4.9	44
112	Interaction of flames of H2 + O2 with inert walls. Combustion and Flame, 2003, 135, 123-133.	5.2	81
113	Comparison of computational methodologies for ignition of diffusion layers. Combustion Science and Technology, 2003, 175, 1783-1806.	2.3	27
114	Flame/wall interaction and maximum wall heat fluxes in diffusion burners. Proceedings of the Combustion Institute, 2002, 29, 775-779.	3.9	22
115	Numerical simulation and modeling for lean stratified propane-air flames. Combustion and Flame, 2002, 128, 1-21.	5.2	136
116	Relationship between turbulent scalar flux and conditional dilatation in premixed flames with complex chemistry. Combustion and Flame, 2001, 126, 1764-1779.	5.2	41
117	Convergence Acceleration for Steady Flame Computations. Journal of Computational Physics, 2000, 161, 718-722.	3.8	1
118	Asymptotic and numerical study of the stabilization of diffusion flames by hot gas. Combustion and Flame, 2000, 120, 143-159.	5.2	14
119	Numerical simulation of turbulent propaneâ€“air combustion with nonhomogeneous reactants. Combustion and Flame, 2000, 121, 395-417.	5.2	150
120	An unsteady laminar flamelet model for non-premixed combustion. Combustion Theory and Modelling, 2000, 4, 77-97.	1.9	43
121	The effects of slightly soluble surfactants on the flow around a spherical bubble. Journal of Fluid Mechanics, 1997, 339, 25-53.	3.4	237
122	Asymptotic and numerical study of diffusion flames with variable Lewis number and finite rate chemistry. Combustion and Flame, 1996, 104, 111-137.	5.2	56
123	Effects of curvature and unsteadiness in diffusion flames. Implications for turbulent diffusion combustion. Proceedings of the Combustion Institute, 1994, 25, 1383-1390.	0.3	46