Oliver Stein

List of Publications by Year
in descending order

61 papers	1,496 citations	257101 24 h-index	329751 37 g-index
62 all docs	62 docs citations	62 times ranked	668 citing authors

#	Article	IF	Citations
1	Towards Comprehensive Coal Combustion Modelling for LES. Flow, Turbulence and Combustion, 2013, 90, 859-884.	1.4	117
2	A posteriori testing of algebraic flame surface density models for LES. Combustion Theory and Modelling, 2013, 17, 431-482.	1.0	76
3	Flamelet LES modeling of coal combustion with detailed devolatilization by directly coupled CPD. Proceedings of the Combustion Institute, 2017, 36, 2181-2189.	2.4	76
4	LES of swirl-stabilised pulverised coal combustion in IFRF furnace No. 1. Proceedings of the Combustion Institute, 2015, 35, 2819-2828.	2.4	61
5	LES of the Sydney swirl flame series: A study of vortex breakdown in isothermal and reacting flows. Proceedings of the Combustion Institute, 2007, 31, 1755-1763.	2.4	59
6	Resolved flow simulation of pulverized coal particle devolatilization and ignition in air- and O 2 /CO 2 -atmospheres. Fuel, 2016, 186, 285-292.	3.4	59
7	LES-CMC of a dilute acetone spray flame. Proceedings of the Combustion Institute, 2013, 34, 1643-1650.	2.4	47
8	Large Eddy Simulations of Swirling Non-premixed Flames With Flamelet Models: A Comparison of Numerical Methods. Flow, Turbulence and Combustion, 2008, 81, 523-561.	1.4	46
9	Comparison of the Sigma and Smagorinsky LES models for grid generated turbulence and a channel flow. Computers and Fluids, 2014, 99, 172-181.	1.3	46
10	Carrier-phase DNS of pulverized coal particle ignition and volatile burning in a turbulent mixing layer. Fuel, 2018, 212, 364-374.	3.4	46
11	Assessment of mixing time scales for a sparse particle method. Combustion and Flame, 2017, 179, 280-299.	2.8	43
12	Large Eddy Simulation of piloted pulverized coal combustion using the velocity-scalar joint filtered density function model. Fuel, 2015, 158, 494-502.	3.4	42
13	Fully-resolved simulations of coal particle combustion using a detailed multi-step approach for heterogeneous kinetics. Fuel, 2019, 240, 75-83.	3.4	40
14	LES of lifted flames in a gas turbine model combustor using top-hat filtered PFGM chemistry. Fuel, 2012, 96, 100-107.	3.4	37
15	A stochastic multiple mapping conditioning computational model in OpenFOAM for turbulent combustion. Computers and Fluids, 2018, 172, 410-425.	1.3	36
16	Large eddy simulation of dilute acetone spray flames using CMC coupled with tabulated chemistry. Proceedings of the Combustion Institute, 2015, 35, 1667-1674.	2.4	33
17	Coal particle volatile combustion and flame interaction. Part II: Effects of particle Reynolds number and turbulence. Fuel, 2018, 234, 723-731.	3.4	33
18	Coal particle volatile combustion and flame interaction. Part I: Characterization of transient and group effects. Fuel, 2018, 229, 262-269.	3.4	33

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19	A flamelet/progress variable approach for modeling coal particle ignition. Fuel, 2017, 201, 29-38.	3.4	32
20	LES OF THE SYDNEY SWIRL FLAME SERIES: AN INITIAL INVESTIGATION OF THE FLUID DYNAMICS. Combustion Science and Technology, 2007, 179, 173-189.	1.2	31
21	Imaging measurements and LES-CMC modeling of a partially-premixed turbulent dimethyl ether/air jet flame. Proceedings of the Combustion Institute, 2015, 35, 1251-1258.	2.4	31
22	Evaluation of a flamelet/progress variable approach for pulverized coal combustion in a turbulent mixing layer. Proceedings of the Combustion Institute, 2019, 37, 2927-2934.	2.4	31
23	Highly-resolved LES and PIV Analysis of Isothermal Turbulent Opposed Jets for Combustion Applications. Flow, Turbulence and Combustion, 2011, 87, 425-447.	1.4	29
24	MMC-LES modelling of droplet nucleation and growth in turbulent jets. Chemical Engineering Science, 2017, 167, 204-218.	1.9	26
25	In-Nozzle Measurements of a Turbulent Opposed Jet Using PIV. Flow, Turbulence and Combustion, 2010, 85, 73-93.	1.4	24
26	A posteriori testing of the flame surface density transport equationÂforÂLES. Combustion Theory and Modelling, 2014, 18, 32-64.	1.0	24
27	Fully resolved DNS of droplet array combustion in turbulent convective flows and modelling for mixing fields in inter-droplet space. Combustion and Flame, 2018, 189, 347-366.	2.8	23
28	A two-phase MMCâ€“LES model for turbulent spray flames. Combustion and Flame, 2018, 193, 424-439.	2.8	22
29	Multiple mapping conditioning for silica nanoparticle nucleation in turbulent flows. Proceedings of the Combustion Institute, 2017, 36, 1089-1097.	2.4	20
30	Evaluation of scale resolving turbulence generation methods for Large Eddy Simulation of turbulent flows. Computers and Fluids, 2014, 93, 116-128.	1.3	19
31	Sparse-Lagrangian MMC modelling of the Sandia DME flame series. Combustion and Flame, 2019, 208, 110-121.	2.8	18
32	Simulation of Dilute Acetone Spray Flames with LES-CMC Using Two Conditional Moments. Flow, Turbulence and Combustion, 2014, 93, 405-423.	1.4	17
33	Flamelet tabulation methods for solid fuel combustion with fuel-bound nitrogen. Combustion and Flame, 2019, 209, 155-166.	2.8	17
34	A comprehensive study of flamelet tabulation methods for pulverized coal combustion in a turbulent mixing layer â€” Part I: A priori and budget analyses. Combustion and Flame, 2020, 216, 439-452.	2.8	16
35	Conditional scalar dissipation rate modeling for turbulent spray flames using artificial neural networks. Proceedings of the Combustion Institute, 2021, 38, 3371-3378.	2.4	15
36	Joint experimental and numerical study of silica particulate synthesis in a turbulent reacting jet. Proceedings of the Combustion Institute, 2019, 37, 1213-1220.	2.4	13

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37	Carrier-phase DNS of detailed NOx formation in early-stage pulverized coal combustion with fuel-bound nitrogen. Fuel, 2021, 291, 119998.	3.4	13
38	Assessment of scaling laws for mixing fields in inter-droplet space. Proceedings of the Combustion Institute, 2017, 36, 2451-2458.	2.4	12
39	A comprehensive study of flamelet tabulation methods for pulverized coal combustion in a turbulent mixing layerâ€"Part II: Strong heat losses and multi-mode combustion. Combustion and Flame, 2020, 216, 453-467.	2.8	11
40	A two-phase MMC-LES model for pyrolysing solid particles in a turbulent flame. Combustion and Flame, 2019, 209, 322-336.	2.8	10
41	Numerical Analysis of a Turbulent Pulverized Coal Flame Using a Flamelet/Progress Variable Approach and Modeling Experimental Artifacts. Energy & Fuels, 2021, 35, 7133-7143.	2.5	10
42	Modeling stratified flames with and without shear using multiple mapping conditioning. Proceedings of the Combustion Institute, 2019, 37, 2317-2324.	2.4	9
43	Detailed analysis of early-stage NO formation in turbulent pulverized coal combustion with fuel-bound nitrogen. Proceedings of the Combustion Institute, 2021, 38, 4111-4119.	2.4	9
44	MMC-LES of a syngas mixing layer using an anisotropic mixing time scale model. Combustion and Flame, 2018, 189, 311-314.	2.8	8
45	Multiple mapping conditioning coupled with an artificially thickened flame model for turbulent premixed combustion. Combustion and Flame, 2018, 196, 325-336.	2.8	8
46	Numerical Investigation of Spray Collapse in GDI with OpenFOAM. Fluids, 2021, 6, 104.	0.8	8
47	A new perspective on modelling passive scalar conditional mixing statistics in turbulent spray flames. Combustion and Flame, 2019, 208, 376-387.	2.8	7
48	Two-phase sparse-Lagrangian MMC-LES of dilute ethanol spray flames. Proceedings of the Combustion Institute, 2021, 38, 3343-3350.	2.4	7
49	Quality Issues in Combustion LES. Journal of Scientific Computing, 2011, 49, 51-64.	1.1	6
50	Multi-dimensional and transient effects on flamelet modeling for turbulent pulverized coal combustion. Fuel, 2019, 255, 115772.	3.4	6
51	Investigation of Turbulent Pulverized Solid Fuel Combustion with Detailed Homogeneous and Heterogeneous Kinetics. Energy & Fuels, 2021, 35, 7077-7091.	2.5	5
52	Sparse-Lagrangian PDF Modelling of Silica Synthesis from Silane Jets in Vitiated Co-flows with Varying Inflow Conditions. Flow, Turbulence and Combustion, 2021, 106, 1167-1194.	1.4	5
53	Analysis of Gas-Assisted Pulverized Coal Combustion in Cambridge Coal Burner CCB1 Using FPV-LES. Energy & Fuels, 2020, 34, 7477-7489.	2.5	5
54	Large Eddy Simulation of non-reacting gas flow in a 40 MW pulverised coal combustor. Progress in Computational Fluid Dynamics, 2011, 11, 397.	0.1	4

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55	LES-CMC of a Partially Premixed, Turbulent Dimethyl Ether Jet Diffusion Flame. Flow, Turbulence and Combustion, 2017, 98, 803-816.	1.4	3
56	Two-phase coupling for MMC-LES of spray combustion. Proceedings of the Combustion Institute, 2021, 38, 3361-3369.	2.4	3
57	Effects of air and oxy-fuel atmospheres on flamelet modeling of pollutant formation in laminar counterflow solid fuel flames. Fuel, 2021, 285, 119079.	3.4	3
58	Coal and Biomass Combustion. Journal of Combustion, 2018, 2018, 1-2.	0.5	2
59	Large eddy simulation of Cambridge bluff-body coal (CCB2) flames with a flamelet progress variable model. Proceedings of the Combustion Institute, 2021, 38, 5347-5354.	2.4	2
60	Efficient modeling of the filtered density function in turbulent sprays using ensemble learning. Combustion and Flame, 2022, 237, 111722.	2.8	2
61	Detailed simulations for flamelet modelling of SO x formation from coal. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900367.	0.2	0