Andreas Kronenburg

List of Publications by Year
in descending order

104 papers	2,480 citations	159525 30 h-index	243529 44 g-index
109 all docs	109 docs citations	109 times ranked	1039 citing authors

#	Article	IF	Citations
1	Conditional Moment Closure for Large Eddy Simulations. Flow, Turbulence and Combustion, 2005, 75, 245-274.	1.4	140
2	Modeling soot formation in turbulent methaneâ€“air jet diffusion flames. Combustion and Flame, 2000, 121, 24-40.	2.8	128
3	Towards Comprehensive Coal Combustion Modelling for LES. Flow, Turbulence and Combustion, 2013, 90, 859-884.	1.4	117
4	Systematically reduced chemical mechanisms for sulfur oxidation and pyrolysis. Combustion and Flame, 2006, 146, 437-455.	2.8	70
5	LESâ€“CMC simulations of a lifted methane flame. Proceedings of the Combustion Institute, 2009, 32, 1509-1516.	2.4	70
6	Double conditioning of reactive scalar transport equations in turbulent nonpremixed flames. Physics of Fluids, 2004, 16, 2640-2648.	1.6	65
7	LES of swirl-stabilised pulverised coal combustion in IFRF furnace No. 1. Proceedings of the Combustion Institute, 2015, 35, 2819-2828.	2.4	61
8	A simple model for the filtered density function for passive scalar combustion LES. Combustion Theory and Modelling, 2009, 13, 559-588.	1.0	60
9	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
10	LES-CMC simulations of a turbulent bluff-body flame. Proceedings of the Combustion Institute, 2007, 31, 1721-1728.	2.4	57
11	Modelling of differential diffusion effects in nonpremixed nonreacting turbulent flow. Physics of Fluids, 1997, 9, 1435-1447.	1.6	52
12	Flame Stabilization Mechanisms in Lifted Flames. Flow, Turbulence and Combustion, 2011, 87, 377-406.	1.4	51
13	LES-CMC of a dilute acetone spray flame. Proceedings of the Combustion Institute, 2013, 34, 1643-1650.	2.4	47
14	Carrier-phase DNS of pulverized coal particle ignition and volatile burning in a turbulent mixing layer. Fuel, 2018, 212, 364-374.	3.4	46
15	Modeling extinction and reignition in turbulent flames. Combustion and Flame, 2005, 143, 342-356.	2.8	45
16	Second-order conditional moment closure for turbulent jet diffusion flames. Proceedings of the Combustion Institute, 1998, 27, 1097-1104.	0.3	43
17	Assessment of mixing time scales for a sparse particle method. Combustion and Flame, 2017, 179, 280-299.	2.8	43
18	The Numerical Simulation of Diesel Spray Combustion with LES-CMC. Flow, Turbulence and Combustion, 2012, 89, 651-673.	1.4	40

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19	Fully-resolved simulations of coal particle combustion using a detailed multi-step approach for heterogeneous kinetics. Fuel, 2019, 240, 75-83.	3.4	40
20	A systematically reduced reaction mechanism for sulphur oxidation. Proceedings of the Combustion Institute, 2005, 30, 1227-1235.	2.4	38
21	Conditional moment closure modeling of extinction and re-ignition in turbulent non-premixed flames. Proceedings of the Combustion Institute, 2005, 30, 759-766.	2.4	36
22	A stochastic multiple mapping conditioning computational model in OpenFOAM for turbulent combustion. Computers and Fluids, 2018, 172, 410-425.	1.3	36
23	Multiple mapping conditioning for flames with partial premixing. Combustion and Flame, 2008, 155, 215-231.	2.8	35
24	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
25	Coal particle volatile combustion and flame interaction. Part II: Effects of particle Reynolds number and turbulence. Fuel, 2018, 234, 723-731.	3.4	33
26	Coal particle volatile combustion and flame interaction. Part I: Characterization of transient and group effects. Fuel, 2018, 229, 262-269.	3.4	33
27	Modelling Differential Diffusion in Nonpremixed Reacting Turbulent Flow: Application to Turbulent Jet Flames. Combustion Science and Technology, 2001, 166, 175-194.	1.2	32
28	A flamelet/progress variable approach for modeling coal particle ignition. Fuel, 2017, 201, 29-38.	3.4	32
29	Evaporation rates of droplet arrays in turbulent reacting flows. Proceedings of the Combustion Institute, 2011, 33, 2117-2125.	2.4	31
30	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
31	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
32	MMC-LES modelling of droplet nucleation and growth in turbulent jets. Chemical Engineering Science, 2017, 167, 204-218.	1.9	26
33	Modelling Differential Diffusion in Nonpremixed Reacting Turbulent Flow: Model Development. Combustion Science and Technology, 2001, 166, 195-227.	1.2	25
34	Multiple mapping conditioning for extinction and reignition in turbulent diffusion flames. Proceedings of the Combustion Institute, 2007, 31, 1497-1505.	2.4	25
35	Stochastic multiple mapping conditioning for a piloted, turbulent jet diffusion flame. Proceedings of the Combustion Institute, 2011, 33, 1523-1531.	2.4	25
36	Experimental investigation of axisymmetric, turbulent, annular jets discharged through the nozzle of the SPP1980 SpraySyn burner under isothermal and reacting conditions. Experimental Thermal and Fluid Science, 2020, 114, 110052.	1.5	25

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37	Modeling of sub-grid conditional mixing statistics in turbulent sprays using machine learning methods. Physics of Fluids, 2020, 32, .	1.6	25
38	Multiple mapping conditioning of turbulent jet diffusion flames. Proceedings of the Combustion Institute, 2009, 32, 1679-1685.	2.4	23
39	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
40	A two-phase MMCâ€"LES model for turbulent spray flames. Combustion and Flame, 2018, 193, 424-439.	2.8	22
41	Numerical and experimental analysis of flashing cryogenic nitrogen. International Journal of Multiphase Flow, 2020, 130, 103360.	1.6	22
42	Computation of Conditional Average Scalar Dissipation in Turbulent Jet Diffusion Flames. Flow, Turbulence and Combustion, 2000, 64, 145-159.	1.4	21
43	â€˜Hybridâ€™ multiple mapping conditioning on passive and reactive scalars. Combustion and Flame, 2007, 151, 623-638.	2.8	21
44	Large Eddy Simulation of Diesel Engine In-cylinder Flow. Flow, Turbulence and Combustion, 2012, 88, 233-253.	1.4	21
45	Modeling Nanoparticle Agglomeration using Local Interactions. Aerosol Science and Technology, 2014, 48, 842-852.	1.5	21
46	Multiple mapping conditioning for silica nanoparticle nucleation in turbulent flows. Proceedings of the Combustion Institute, 2017, 36, 1089-1097.	2.4	20
47	Evaluation of scale resolving turbulence generation methods for Large Eddy Simulation of turbulent flows. Computers and Fluids, 2014, 93, 116-128.	1.3	19
48	Turbulent mixing in three-dimensional droplet arrays. International Journal of Heat and Fluid Flow, 2011, 32, 499-509.	1.1	18
49	The effect of timescale variation in multiple mapping conditioning mixing of PDF calculations for Sandia Flame series Dâ€"F. Combustion Theory and Modelling, 2016, 20, 894-912.	1.0	18
50	Sparse-Lagrangian MMC modelling of the Sandia DME flame series. Combustion and Flame, 2019, 208, 110-121.	2.8	18
51	Simulation of Dilute Acetone Spray Flames with LES-CMC Using Two Conditional Moments. Flow, Turbulence and Combustion, 2014, 93, 405-423.	1.4	17
52	Langevin Dynamics Simulation of Transport and Aggregation of Soot Nano-particles in Turbulent Flows. Flow, Turbulence and Combustion, 2017, 98, 1065-1085.	1.4	17
53	Flamelet tabulation methods for solid fuel combustion with fuel-bound nitrogen. Combustion and Flame, 2019, 209, 155-166.	2.8	17
54	Modeling of scalar mixing in turbulent jet flames by multiple mapping conditioning. Physics of Fluids, 2009, 21, .	1.6	16

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55	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
56	The Conditional Moment Closure Model. Fluid Mechanics and Its Applications, 2011, , 91-117.	0.1	15
57	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
58	Primary breakup regimes for cryogenic flash atomization. International Journal of Multiphase Flow, 2020, 132, 103405.	1.6	14
59	Mixing Modelling Framework Based on Multiple Mapping Conditioning for the Prediction of Turbulent Flame Extinction. Flow, Turbulence and Combustion, 2015, 95, 501-517.	1.4	13
60	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
61	Carrier-phase DNS of detailed NOx formation in early-stage pulverized coal combustion with fuel-bound nitrogen. Fuel, 2021, 291, 119998.	3.4	13
62	Assessment of scaling laws for mixing fields in inter-droplet space. Proceedings of the Combustion Institute, 2017, 36, 2451-2458.	2.4	12
63	Grid dependence of evaporation rates in Eulerâ€"Lagrange simulations of dilute sprays. Combustion and Flame, 2021, 232, 111515.	2.8	12
64	Combustion characteristics of aluminum particle jet flames in a hot co-flow. Chemical Engineering Journal, 2022, 442, 135876.	6.6	12
65	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
66	On the spatial length scales of scalar dissipation in turbulent jet flames. Journal of Fluid Mechanics, 2008, 596, 103-132.	1.4	10
67	A two-phase MMC-LES model for pyrolysing solid particles in a turbulent flame. Combustion and Flame, 2019, 209, 322-336.	2.8	10
68	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
69	Droplet size distributions in cryogenic flash atomization. International Journal of Multiphase Flow, 2021, 142, 103705.	1.6	10
70	Effects of agglomerate characteristics on their collision kernels in the free molecular regime. Journal of Aerosol Science, 2022, 159, 105868.	1.8	10
71	Modeling stratified flames with and without shear using multiple mapping conditioning. Proceedings of the Combustion Institute, 2019, 37, 2317-2324.	2.4	9
72	Mixing Time Scale Models for Multiple Mapping Conditioning with Two Reference Variables. Flow, Turbulence and Combustion, 2021, 106, 1143-1166.	1.4	9

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73	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
74	Quantification and mitigation of PIV bias errors caused by intermittent particle seeding and particle lag by means of large eddy simulations. Measurement Science and Technology, 2021, 32, 104006.	1.4	9
75	MMC-LES of a syngas mixing layer using an anisotropic mixing time scale model. Combustion and Flame, 2018, 189, 311-314.	2.8	8
76	Multiple mapping conditioning coupled with an artificially thickened flame model for turbulent premixed combustion. Combustion and Flame, 2018, 196, 325-336.	2.8	8
77	Numerical simulation of the growth and interaction of vapour bubbles in superheated liquid jets. International Journal of Multiphase Flow, 2019, 121, 103112.	1.6	8
78	Single vapour bubble growth under flash boiling conditions using a modified HLLC Riemann solver. International Journal of Multiphase Flow, 2019, 116, 250-269.	1.6	8
79	Numerical simulations of turbulent lifted jet diffusion flames in a vitiated coflow using the stochastic multiple mapping conditioning approach. Proceedings of the Combustion Institute, 2019, 37, 2199-2206.	2.4	7
80	A new perspective on modelling passive scalar conditional mixing statistics in turbulent spray flames. Combustion and Flame, 2019, 208, 376-387.	2.8	7
81	Two-phase sparse-Lagrangian MMC-LES of dilute ethanol spray flames. Proceedings of the Combustion Institute, 2021, 38, 3343-3350.	2.4	7
82	Multiple mapping conditioning of velocity in turbulent jet flames. Combustion and Flame, 2010, 157, 1863-1865.	2.8	6
83	Multi-dimensional and transient effects on flamelet modeling for turbulent pulverized coal combustion. Fuel, 2019, 255, 115772.	3.4	6
84	PDF-PBE modelling of polydisperse inertial particles in a turbulent recirculating flow. International Journal of Multiphase Flow, 2019, 117, 42-52.	1.6	6
85	Investigation of Turbulent Pulverized Solid Fuel Combustion with Detailed Homogeneous and Heterogeneous Kinetics. Energy & Fuels, 2021, 35, 7077-7091.	2.5	5
86	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
87	Analysis of Gas-Assisted Pulverized Coal Combustion in Cambridge Coal Burner CCB1 Using FPV-LES. Energy & Fuels, 2020, 34, 7477-7489.	2.5	5
88	Developing coarse-grained models for agglomerate growth. European Physical Journal: Special Topics, 2019, 227, 1515-1527.	1.2	4
89	LES-CMC of a Partially Premixed, Turbulent Dimethyl Ether Jet Diffusion Flame. Flow, Turbulence and Combustion, 2017, 98, 803-816.	1.4	3
90	Two-phase coupling for MMC-LES of spray combustion. Proceedings of the Combustion Institute, 2021, 38, 3361-3369.	2.4	3

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91	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
92	LES of a Non-Premixed Flame with an Assumed Tophat FDF. Springer Proceedings in Physics, 2009, , 763-766.	0.1	3
93	Analysis of Stabilization Mechanisms in Lifted Flames. , 2009, , .		2
94	Modelling Sub-Grid Passive Scalar Statistics in Moderately Dense Evaporating Sprays. Flow, Turbulence and Combustion, 2019, 103, 519-535.	1.4	2
95	Large eddy simulation of polydispersed inertial particles using two-way coupled PDF-PBE. International Journal of Heat and Fluid Flow, 2020, 83, 108585.	1.1	2
96	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
97	Efficient modeling of the filtered density function in turbulent sprays using ensemble learning. Combustion and Flame, 2022, 237, 111722.	2.8	2
98	Expansion rates of bubble clusters in superheated liquids. , 0, , .		2
99	Gas-Phase Mixing in Droplet Arrays. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 409-415.	0.2	1
100	A Resolved Simulation Study on the Interactions Between Droplets and Turbulent Flames Using OpenFOAM. , 2018, , 205-220.		1
101	Assessment of Conventional Droplet Evaporation Models for Spray Flames. , 2012, , 209-227.		1
102	Detailed simulations for flamelet modelling of SO x formation from coal. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900367.	0.2	0
103	Scalar Mixing in Droplet Arrays in Stagnant and Convective Environments. , 2011, , 191-202.		0
104	Certain Aspects of Conditional Moment Closure for Spray Flame Modelling. , 2015, , 335-350.		0