Andreas M Kempf

List of Publications by Year
in descending order

129	3,907	36	58
papers	citations	h-index	g-index

101496 138417

129	129	129	1820
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Towards the Suitability of Information Entropy as an LES Quality Indicator. Flow, Turbulence and Combustion, 2022, 108, 353-385.	1.4	4
2	A-posteriori assessment of Large-Eddy Simulation subgrid-closures for momentum and scalar fluxes in a turbulent premixed burner experiment. Computers and Fluids, 2022, 240, 105441.	1.3	2
3	LES of nanoparticle synthesis in the spraysyn burner: A comparison against experiments. Powder Technology, 2022, 404, 117466.	2.1	11
4	Determining the sintering kinetics of Fe and Fe_xO_y-Nanoparticles in a well-defined model flow reactor. Aerosol Science and Technology, 2022, 56, 833-846.	1.5	8
5	Lagrangian filtered density function modeling of a turbulent stratified flame combined with flamelet approach. Physics of Fluids, 2022, 34, .	1.6	2
6	Experimental and numerical investigation of iron-doped flames: FeO formation and impact on flame temperature. Proceedings of the Combustion Institute, 2021, 38, 1249-1257.	2.4	20
7	Fast Flow Field Estimation for Various Applications with A Universally Applicable Machine Learning Concept. Flow, Turbulence and Combustion, 2021, 107, 175-200.	1.4	11
8	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
9	Robust dynamic adaptation of the Smagorinsky model based on a sub-grid activity sensor. Physics of Fluids, 2021, 33, .	1.6	19
10	Gas-phase aluminium acetylacetonate decomposition: revision of the current mechanism by VUV synchrotron radiation. Physical Chemistry Chemical Physics, 2021, 23, 15059-15075.	1.3	22
11	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
12	A-posteriori LES assessment of subgrid-scale closures for bounded passive scalars. Computers and Fluids, 2021, 218, 104840.	1.3	6
13	Effect of sub-grid wrinkling factor modelling on the large eddy simulation of turbulent stratified combustion. Combustion Theory and Modelling, 2021, 25, 911-939.	1.0	5
14	Investigation of Turbulent Pulverized Solid Fuel Combustion with Detailed Homogeneous and Heterogeneous Kinetics. Energy & Fuels, 2021, 35, 7077-7091.	2.5	5
15	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
16	Regularized, parameter free scale similarity type models for Large Eddy Simulation. International Journal of Heat and Fluid Flow, 2020, 81, 108496.	1.1	13
17	Direct numerical simulations of nanoparticle formation in premixed and non-premixed flameâ€"vortex interactions. Physics of Fluids, 2020, 32, .	1.6	17
18	Particle history from massively parallel large eddy simulations of pulverised coal combustion in a large-scale laboratory furnace. Fuel, 2020, 271, 117587.	3.4	5

#	Article	IF	Citations
19	LES Analysis of CO Emissions from a High Pressure Siemens Gas Turbine Prototype Combustor at Part Load. Energies, 2020, 13, 5751.	1.6	1
20	Multiscale Simulation of the Formation of Platinum-Particles on Alumina Nanoparticles in a Spray Flame Experiment. Fluids, 2020, 5, 201.	0.8	11
21	Investigation of a High Karlovitz, High Pressure Premixed Jet Flame with Heat Losses by LES. Combustion Science and Technology, 2020, 192, 2138-2170.	1.2	3
22	Local entrainment velocity in a premixed turbulent annular jet flame. Proceedings of the Combustion Institute, 2019, 37, 2493-2501.	2.4	10
23	Detailed simulation of iron oxide nanoparticle forming flames: Buoyancy and probe effects. Proceedings of the Combustion Institute, 2019, 37, 1241-1248.	2.4	20
24	Flamelet tabulation methods for solid fuel combustion with fuel-bound nitrogen. Combustion and Flame, 2019, 209, 155-166.	2.8	17
25	SpraySynâ€"A standardized burner configuration for nanoparticle synthesis in spray flames. Review of Scientific Instruments, 2019, 90, 085108.	0.6	89
26	Numerical study of a pulsed auto-igniting jet flame with detailed tabulated chemistry. Fuel, 2019, 252, 408-416.	3.4	17
27	Large-Eddy Simulation of Sandia Flame D with Efficient Explicit Filtering. Flow, Turbulence and Combustion, 2019, 102, 887-907.	1.4	2
28	Detailed simulations for flamelet modelling of SO x formation from coal. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900367.	0.2	0
29	What can we learn from informationâ€entropy about turbulence and Largeâ€Eddyâ€Simulation?. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900253.	0.2	1
30	Evolutionary Camera Pose Estimation of a Multi-Camera Setup for Computed Tomography. , 2019, , .		4
31	3D Evolutionary Reconstruction of Scalar Fields in the Gas-Phase. Energies, 2019, 12, 2075.	1.6	18
32	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
33	A hybrid flamelet finite-rate chemistry approach for efficient LES with a transported FDF. Combustion and Flame, 2019, 199, 183-193.	2.8	13
34	Analysis of mild ignition in a shockÂtube using a highly resolved 3D-LES and high-order shock-capturing schemes. Shock Waves, 2019, 29, 511-521.	1.0	13
35	Studying Transient Jet Flames by High-Resolution LES Using Premixed Flamelet Chemistry. ERCOFTAC Series, 2019, , 237-243.	0.1	0
36	Modelling heat loss effects in high temperature oxy-fuel flames with an efficient and robust non-premixed flamelet approach. Fuel, 2018, 216, 44-52.	3.4	18

#	Article	IF	Citations
37	Carrier-phase DNS of pulverized coal particle ignition and volatile burning in a turbulent mixing layer. Fuel, 2018, 212, 364-374.	3.4	46
38	A Large Eddy Simulation Study on the Effect of Devolatilization Modelling and Char Combustion Mode Modelling on the Structure of a Large-Scale, Biomass and Coal Co-Fired Flame. Journal of Combustion, 2018, 2018, 1-15.	0.5	10
39	3D Instantaneous Reconstruction of Turbulent Industrial Flames Using Computed Tomography of Chemiluminescence (CTC). Journal of Combustion, 2018, 2018, 1-6.	0.5	12
40	Analysis of flame curvature evolution in a turbulent premixed bluff body burner. Physics of Fluids, 2018, 30, 095101.	1.6	28
41	Response surface and group additivity methodology for estimation of thermodynamic properties of organosilanes. International Journal of Chemical Kinetics, 2018, 50, 681-690.	1.0	16
42	Prediction of CO and NOx Pollutants in a Stratified Bluff Body Burner. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	0.5	7
43	Instantaneous 3D flame imaging by background-oriented schlieren tomography. Combustion and Flame, 2018, 196, 284-299.	2.8	96
44	Statistics of strain rates and surface density function in a flame-resolved high-fidelity simulation of a turbulent premixed bluff body burner. Physics of Fluids, 2018, 30, .	1.6	22
45	Coal particle volatile combustion and flame interaction. Part I: Characterization of transient and group effects. Fuel, 2018, 229, 262-269.	3.4	33
46	A Simple Approach for Specifying Velocity Inflow Boundary Conditions in Simulations of Turbulent Opposed-Jet Flows. Flow, Turbulence and Combustion, 2017, 98, 131-153.	1.4	5
47	On the Evolution of the Flow Field in a Spark Ignition Engine. Flow, Turbulence and Combustion, 2017, 98, 237-264.	1.4	38
48	Flame surface density based modelling of head-on quenching of turbulent premixed flames. Proceedings of the Combustion Institute, 2017, 36, 1817-1825.	2.4	35
49	Flame resolved simulation of a turbulent premixed bluff-body burner experiment. Part I: Analysis of the reaction zone dynamics with tabulated chemistry. Combustion and Flame, 2017, 180, 321-339.	2.8	50
50	Large eddy simulation of particle aggregation in turbulent jets. Journal of Aerosol Science, 2017, 111, 1-17.	1.8	13
51	Flame resolved simulation of a turbulent premixed bluff-body burner experiment. Part II: A-priori and a-posteriori investigation of sub-grid scale wrinkling closures in the context of artificially thickened flame modeling. Combustion and Flame, 2017, 180, 340-350.	2.8	37
52	Dilute suspensions in annular shear flow under gravity: simulation and experiment. EPJ Web of Conferences, 2017, 140, 09034.	0.1	0
53	Prediction of CO and NOx Pollutants in a Stratified Bluff Body Burner. , 2017, , .		0
54	A flamelet/progress variable approach for modeling coal particle ignition. Fuel, 2017, 201, 29-38.	3.4	32

#	ARTICLE	IF	CITATIONS
55	CoFlaVis: A Visualization System for Pulverized Coal Flames. Computing in Science and Engineering, 2017, 19, 72-78.	1.2	5
56	Instantaneous 3D imaging of highly turbulent flames using computed tomography of chemiluminescence. Applied Optics, 2017, 56, 7385.	0.9	70
57	Inline coating of silicon nanoparticles in a plasma reactor: Reactor design, simulation and experiment. Materials Today: Proceedings, 2017, 4, S118-S127.	0.9	13
58	Numerical Investigation of Thirdâ€Body Behavior in Dry and Wet Environments under Plane Shearing. Chemical Engineering and Technology, 2016, 39, 1497-1508.	0.9	3
59	Energy loss in intergalactic pair beams: Particle-in-cell simulation. Astronomy and Astrophysics, 2016, 585, A132.	2.1	28
60	Large Eddy Simulation of a 100 kWth swirling oxy-coal furnace. Fuel, 2016, 181, 491-502.	3.4	26
61	Flamelet LES of a semi-industrial pulverized coal furnace. Combustion and Flame, 2016, 173, 39-56.	2.8	78
62	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
63	High-resolution LES of a starting jet. Computers and Fluids, 2016, 140, 435-449.	1.3	16
64	Large Eddy Simulation of an Internal Combustion Engine Using an Efficient Immersed Boundary Technique. Flow, Turbulence and Combustion, 2016, 97, 191-230.	1.4	24
65	Stochastic modelling of particle aggregation. International Journal of Multiphase Flow, 2016, 80, 118-130.	1.6	8
66	Challenging modeling strategies for LES of non-adiabatic turbulent stratified combustion. Combustion and Flame, 2015, 162, 4264-4282.	2.8	79
67	A Genetic Algorithmâ€"Based Method for the Optimization of Reduced Kinetics Mechanisms. International Journal of Chemical Kinetics, 2015, 47, 695-723.	1.0	36
68	Initial reaction steps during flame synthesis of iron-oxide nanoparticles. CrystEngComm, 2015, 17, 6930-6939.	1.3	41
69	PICPANTHER: A simple, concise implementation of the relativistic moment implicit particle-in-cell method. Computer Physics Communications, 2015, 188, 198-207.	3.0	7
70	Large Eddy Simulations of a turbulent premixed swirl flame using an algebraic scalar dissipation rate closure. Combustion and Flame, 2015, 162, 3180-3196.	2.8	36
71	LES of the Sydney piloted spray flame series with the PFGM/ATF approach and different sub-filter models. Combustion and Flame, 2015, 162, 1575-1598.	2.8	71
72	Multi-directional 3D flame chemiluminescence tomography based on lens imaging. Optics Letters, 2015, 40, 1231.	1.7	50

#	Article	IF	Citations
73	Investigation of the sampling nozzle effect on laminar flat flames. Combustion and Flame, 2015, 162, 1737-1747.	2.8	51
74	Numerical investigation of the process steps in a spray flame reactor for nanoparticle synthesis. Proceedings of the Combustion Institute, 2015, 35, 2259-2266.	2.4	32
75	Investigations on the Effect of Different Subgrid Models on the Quality of LES Results. ERCOFTAC Series, 2015, , 141-147.	0.1	2
76	LES of Flow Processes in an SI Engine Using Two Approaches: OpenFoam and PsiPhi. , 2014, , .		10
77	OxyCAP UK: Oxyfuel Combustion - academic Programme for the UK. Energy Procedia, 2014, 63, 504-510.	1.8	1
78	A Genetic Algorithmâ€Based Method for the Automatic Reduction of Reaction Mechanisms. International Journal of Chemical Kinetics, 2014, 46, 41-59.	1.0	37
79	A posteriori testing of the flame surface density transport equationÂforÂLES. Combustion Theory and Modelling, 2014, 18, 32-64.	1.0	24
80	Validation and implementation of algebraic LES modelling of scalar dissipation rate for reaction rate closure in turbulent premixed combustion. Combustion and Flame, 2014, 161, 3134-3153.	2.8	39
81	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
82	Numerical analysis of the Cambridge stratified flame series using artificial thickened flame LES with tabulated premixed flame chemistry. Combustion and Flame, 2014, 161, 2627-2646.	2.8	104
83	Aerosol nucleation in a turbulent jet using Large Eddy Simulations. Chemical Engineering Science, 2014, 116, 383-397.	1.9	10
84	Mechanism of Iron Oxide Formation from Iron Pentacarbonylâ€Doped Lowâ€Pressure Hydrogen/Oxygen Flames. International Journal of Chemical Kinetics, 2013, 45, 487-498.	1.0	31
85	Large Eddy simulation of a pulverised coal jet flame. Proceedings of the Combustion Institute, 2013, 34, 2419-2426.	2.4	104
86	Note on the use of Yee-lattices in (semi-) implicit particle-in-cell codes. Journal of Computational Physics, 2013, 237, 56-60.	1.9	2
87	A posteriori testing of algebraic flame surface density models for LES. Combustion Theory and Modelling, 2013, 17, 431-482.	1.0	76
88	A dynamic model for the Lagrangian stochastic dispersion coefficient. Physics of Fluids, 2013, 25, 125108.	1.6	10
89	Oxidation of divalent rare earth phosphors for thermal history sensing. Sensors and Actuators B: Chemical, 2013, 177, 124-130.	4.0	24
90	Towards Comprehensive Coal Combustion Modelling for LES. Flow, Turbulence and Combustion, 2013, 90, 859-884.	1.4	117

#	Article	IF	Citations
91	Thermal history sensing with thermographic phosphors. AIP Conference Proceedings, 2013, , .	0.3	7
92	Buoyancy induced limits for nanoparticle synthesis experiments in horizontal premixed low-pressure flat-flame reactors. Combustion Theory and Modelling, 2013, 17, 504-521.	1.0	15
93	Simultaneous temperature, mixture fraction and velocity imaging in turbulent flows using thermographic phosphor tracer particles. Optics Express, 2012, 20, 22118.	1.7	98
94	Phosphor Based Temperature Indicating Paints. , 2012, , .		4
95	LES of lifted flames in a gas turbine model combustor using top-hat filtered PFGM chemistry. Fuel, 2012, 96, 100-107.	3.4	37
96	An efficient, parallel low-storage implementation of Kleinâ€™s turbulence generator for LES and DNS. Computers and Fluids, 2012, 60, 58-60.	1.3	90
97	Compressible and Incompressible Large Eddy Simulation of a Premixed Dump Combustor. , 2011, , .		2
98	Error analysis of large-eddy simulation of the turbulent non-premixed sydney bluff-body flame. Combustion and Flame, 2011, 158, 2408-2419.	2.8	63
99	Quality Issues in Combustion LES. Journal of Scientific Computing, 2011, 49, 51-64.	1.1	6
100	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
101	Computed Tomography of Chemiluminescence (CTC): Instantaneous 3D measurements and Phantom studies of a turbulent opposed jet flame. Combustion and Flame, 2011, 158, 376-391.	2.8	170
102	Phosphorescent thermal history sensors. Sensors and Actuators A: Physical, 2011, 169, 18-26.	2.0	63
103	Quality Issues of Combustion LES. ERCOFTAC Series, 2011, , 33-46.	0.1	0
104	Computational error-minimization for LES of non-premixed turbulent combustion. ERCOFTAC Series, 2011, , 351-360.	0.1	0
105	In-Nozzle Measurements of a Turbulent Opposed Jet Using PIV. Flow, Turbulence and Combustion, 2010, 85, 73-93.	1.4	24
106	LES as a Prediction Tool for Lifted Flames in a Model Gas Turbine Combustor. , 2010, , .		2
107	Concept for a Phosphorescent Thermal History Sensor. , 2010, , .		6
108	A simple model for the filtered density function for passive scalar combustion LES. Combustion Theory and Modelling, 2009, 13, 559-588.	1.0	60

#	Article	IF	Citations
109	LES of a Non-Premixed Flame with an Assumed Tophat FDF. Springer Proceedings in Physics, 2009, , 763-766.	0.1	3
110	LES Validation from Experiments. Flow, Turbulence and Combustion, 2008, 80, 351-373.	1.4	26
111	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
112	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
113	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
114	Unsteady methods (URANS and LES) for simulation of combustion systems. International Journal of Thermal Sciences, 2006, 45, 760-773.	2.6	47
115	Large-eddy simulation of a bluff-body stabilized nonpremixed flame. Combustion and Flame, 2006, 144, 170-189.	2.8	117
116	Combustion LES for premixed and diffusion flames. Progress in Computational Fluid Dynamics, 2005, 5, 363.	0.1	12
117	Investigation of lengthscales, scalar dissipation, and flame orientation in a piloted diffusion flame by LES. Proceedings of the Combustion Institute, 2005, 30, 557-565.	2.4	118
118	Scalar dissipation rates in isothermal and reactive turbulent opposed-jets: 1-D-Raman/Rayleigh experiments supported by LES. Proceedings of the Combustion Institute, 2005, 30, 681-689.	2.4	79
119	Turbulent opposed-jet flames: A critical benchmark experiment for combustion LESâ˜†. Combustion and Flame, 2005, 143, 524-548.	2.8	80
120	Efficient Generation of Initial- and Inflow-Conditions for Transient Turbulent Flows in Arbitrary Geometries. Flow, Turbulence and Combustion, 2005, 74, 67-84.	1.4	171
121	Comparison of OH time-series measurements and large-eddy simulations in hydrogen jet flames. Combustion and Flame, 2004, 139, 142-151.	2.8	25
122	NUMERICAL SIMULATION OF FLOW INDUCED BY A CYLINDER ORBITING IN A LARGE VESSEL. Journal of Fluids and Structures, 2002, 16, 435-451.	1.5	5
123	Prediction of finite chemistry effects using large eddy simulation. Proceedings of the Combustion Institute, 2002, 29, 1979-1985.	2.4	39
124	Mixing and Combustion, Perspectives. Fluid Mechanics and Its Applications, 2002, , 387-403.	0.1	1
125	Large-eddy simulation of a counterflow configuration with and without combustion. Proceedings of the Combustion Institute, 2000, 28, 35-40.	2.4	54
126	Penetration of the Flame Into the Top-Land Crevice - Large-Eddy Simulation and Experimental High-Speed Visualization. , 0, , .		11

#	Article	IF	Citations
127	Large-Eddy Simulation of a Lifted High-Pressure Jet-Flame with Direct Chemistry. Combustion Science and Technology, 0, , 1-25.	1.2	2
128	Design and Testing of a High Frequency Thermoacoustic Combustion Experiment. AIAA Journal, 0, , 1-17.	1.5	1
129	Insights into the decomposition of zirconium acetylacetonate using synchrotron radiation: Routes to the formation of volatile Zr-intermediates. Journal of Materials Research, 0, , 1.	1.2	1