

Nils Erland L Haugen

List of Publications by Year in descending order

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63
papers

1,965
citations

304743

22
h-index

254184

43
g-index

64
all docs

64
docs citations

64
times ranked

1444
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulations of nonhelical hydromagnetic turbulence. <i>Physical Review E</i> , 2004, 70, 016308.	2.1	261
2	Evolving turbulence and magnetic fields in galaxy clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 366, 1437-1454.	4.4	217
3	Is Nonhelical Hydromagnetic Turbulence Peaked at Small Scales?. <i>Astrophysical Journal</i> , 2003, 597, L141-L144.	4.5	110
4	The Onset of a Small-Scale Turbulent Dynamo at Low Magnetic Prandtl Numbers. <i>Astrophysical Journal</i> , 2005, 625, L115-L118.	4.5	106
5	The Pencil Code, a modular MPI code for partial differential equations and particles: multipurpose and multiuser-maintained. <i>Journal of Open Source Software</i> , 2021, 6, 2807.	4.6	92
6	Particle impaction on a cylinder in a crossflow as function of Stokes and Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2010, 661, 239-261.	3.4	91
7	Numerical models for thermochemical degradation of thermally thick woody biomass, and their application in domestic wood heating appliances and grate furnaces. <i>Progress in Energy and Combustion Science</i> , 2017, 63, 204-252.	31.2	85
8	Mach number dependence of the onset of dynamo action. <i>Monthly Notices of the Royal Astronomical Society</i> , 2004, 353, 947-952.	4.4	79
9	Inertial range scaling in numerical turbulence with hyperviscosity. <i>Physical Review E</i> , 2004, 70, 026405.	2.1	72
10	A ghost-cell immersed boundary method for simulations of heat transfer in compressible flows under different boundary conditions. <i>International Journal of Heat and Mass Transfer</i> , 2016, 92, 708-717.	4.8	54
11	CFD modeling and thermodynamic analysis of a concept of a MILD-OXY combustion large scale pulverized coal boiler. <i>Energy</i> , 2017, 140, 1305-1315.	8.8	52
12	The conversion mode of a porous carbon particle during oxidation and gasification. <i>Combustion and Flame</i> , 2014, 161, 612-619.	5.2	40
13	Suppression of small scale dynamo action by an imposed magnetic field. <i>Physical Review E</i> , 2004, 70, 036408.	2.1	34
14	The effect of Stefan flow on the drag coefficient of spherical particles in a gas flow. <i>International Journal of Multiphase Flow</i> , 2019, 117, 130-137.	3.4	34
15	Chemical Looping Combustion of Methane Using a Copper-based Oxygen Carrier in a 150 kW Reactor System. <i>Energy Procedia</i> , 2017, 114, 352-360.	1.8	32
16	Hydrodynamic and hydromagnetic energy spectra from large eddy simulations. <i>Physics of Fluids</i> , 2006, 18, 075106.	4.0	30
17	Assessment of existing H ₂ /O ₂ chemical reaction mechanisms at reheat gas turbine conditions. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 12025-12034.	7.1	30
18	A ghost-cell immersed boundary method for the simulations of heat transfer in compressible flows under different boundary conditions Part-II: Complex geometries. <i>International Journal of Heat and Mass Transfer</i> , 2017, 104, 98-111.	4.8	29

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19	Numerical Simulations of Staged Biomass Grate Fired Combustion with an Emphasis on NO _x Emissions. <i>Energy Procedia</i> , 2015, 75, 156-161.	1.8	27
20	A comprehensive model for char particle conversion in environments containing O ₂ and CO ₂ . <i>Combustion and Flame</i> , 2015, 162, 1455-1463.	5.2	27
21	Correlation effects between turbulence and the conversion rate of pulverized char particles. <i>Combustion and Flame</i> , 2017, 185, 160-172.	5.2	23
22	The effect of turbulent clustering on particle reactivity. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2333-2340.	3.9	23
23	Eulerian and Lagrangian approaches to multidimensional condensation and collection. <i>Journal of Advances in Modeling Earth Systems</i> , 2017, 9, 1116-1137.	3.8	22
24	Drag force for a burning particle. <i>Combustion and Flame</i> , 2020, 217, 188-199.	5.2	22
25	Fully resolved simulations of single char particle combustion using a ghost-cell immersed boundary method. <i>AICHE Journal</i> , 2018, 64, 2851-2863.	3.6	19
26	Detection of turbulent thermal diffusion of particles in numerical simulations. <i>Physics of Fluids</i> , 2012, 24, .	4.0	18
27	NO _x formation in oxy-fuel combustion of lignite in a bubbling fluidized bed – Modelling and experimental verification. <i>International Journal of Greenhouse Gas Control</i> , 2018, 76, 208-214.	4.6	18
28	The effect of Stefan flow on Nusselt number and drag coefficient of spherical particles in non-isothermal gas flow. <i>International Journal of Multiphase Flow</i> , 2021, 140, 103650.	3.4	18
29	The effect of turbulence on mass transfer rates of small inertial particles with surface reactions. <i>Journal of Fluid Mechanics</i> , 2018, 836, 932-951.	3.4	17
30	Drying of Thermally Thick Wood Particles: A Study of the Numerical Efficiency, Accuracy, and Stability of Common Drying Models. <i>Energy & Fuels</i> , 2017, 31, 13743-13760.	5.1	15
31	Varying the forcing scale in low Prandtl number dynamos. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 479, 2827-2833.	4.4	15
32	Combustion of Thermally Thick Wood Particles: A Study on the Influence of Wood Particle Size on the Combustion Behavior. <i>Energy & Fuels</i> , 2018, 32, 6847-6862.	5.1	15
33	Cloud-droplet growth due to supersaturation fluctuations in stratiform clouds. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 639-648.	4.9	15
34	The effect of turbulence on mass transfer rates between inertial polydisperse particles and fluid. <i>Journal of Fluid Mechanics</i> , 2019, 874, 1147-1168.	3.4	14
35	The problem of small and large scale fields in the solar dynamo. <i>Astronomische Nachrichten</i> , 2005, 326, 174-185.	1.2	13
36	Turbophoresis in forced inhomogeneous turbulence. <i>European Physical Journal Plus</i> , 2018, 133, 1.	2.6	13

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37	Visualization system for the measurement of size and sphericity of char particles under combustion conditions. Powder Technology, 2016, 301, 141-152.	4.2	12
38	Coupling constants and the generalized Riemann problem for isothermal junction flow. Journal of Hyperbolic Differential Equations, 2015, 12, 37-59.	0.5	11
39	Comprehensive Char Particle Gasification Model Adequate for Entrained-Flow and Fluidized-Bed Gasifiers. Energy & Fuels, 2017, 31, 2164-2174.	5.1	11
40	Kinetic parameters of petroleum coke gasification for modelling chemical-looping combustion systems. Energy, 2021, 232, 120935.	8.8	11
41	Numerical approaches for thermochemical conversion of char. Progress in Energy and Combustion Science, 2022, 91, 100993.	31.2	11
42	A method for retrieving char oxidation kinetic data from reacting particle trajectories in a novel test facility. Fuel, 2018, 212, 240-255.	6.4	10
43	Inertial particle impaction on a cylinder in turbulent cross-flow at modest Reynolds numbers. International Journal of Multiphase Flow, 2019, 111, 53-61.	3.4	10
44	MSWI super heater tube bundle: Particle impaction efficiency and size distribution. Fuel Processing Technology, 2013, 106, 416-422.	7.2	9
45	Design of the experimental rig for retrieving kinetic data of char particles. Fuel Processing Technology, 2017, 156, 178-184.	7.2	9
46	Predicting NOx Emissions from Wood Stoves using Detailed Chemistry and Computational Fluid Dynamics. Energy Procedia, 2015, 75, 1740-1745.	1.8	8
47	Oxy-fuel burner investigations for CO2 capture in cement plants. Energy Procedia, 2017, 120, 120-125.	1.8	8
48	Multipoint radiation induced ignition of dust explosions: turbulent clustering of particles and increased transparency. Combustion Theory and Modelling, 2018, 22, 1084-1102.	1.9	8
49	Spectral characterisation of inertial particle clustering in turbulence. Journal of Fluid Mechanics, 2022, 934, .	3.4	8
50	An experimental study of the reactivity of cellulosic-based chars from wastes. Fuel, 2014, 130, 306-314.	6.4	7
51	Numerical investigation of free-stream turbulence effects on the transition-in-wake state of flow past a circular cylinder. Journal of Turbulence, 2018, 19, 252-273.	1.4	7
52	The effect of turbulence on mass transfer in solid fuel combustion: RANS model. Combustion and Flame, 2021, 227, 65-78.	5.2	7
53	Hydrogen fuel supply system and re-heat gas turbine combustion. Energy Procedia, 2012, 23, 151-160.	1.8	6
54	Modeling radiation in particle clouds: on the importance of inter-particle radiation for pulverized solid fuel combustion. Heat and Mass Transfer, 2015, 51, 991-999.	2.1	5

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55	Nonlinear simulations of combustion instabilities with a quasi-1D Navier-Stokes code. Journal of Sound and Vibration, 2011, 330, 5644-5659.	3.9	4
56	Influence of long pulse duration on time-resolved laser-induced incandescence. Applied Physics B: Lasers and Optics, 2013, 112, 359-367.	2.2	4
57	Simulating Thermal Wood Particle Conversion: Ash-Layer Modeling and Parametric Studies. Energy & Fuels, 2018, 32, 10668-10682.	5.1	4
58	The origin and evolution of cluster magnetism. Astronomische Nachrichten, 2006, 327, 583-586.	1.2	3
59	Numerical Study of Hydrogen Inhibition of Char Gasification Using Detailed Hetero- and Homogeneous Chemical Kinetics. Energy & Fuels, 2016, 30, 4411-4418.	5.1	3
60	Thermophoresis and its effect on particle impaction on a cylinder for low and moderate Reynolds numbers. International Journal of Heat and Mass Transfer, 2021, 181, 121996.	4.8	2
61	A numerical study on the combustion of a resolved carbon particle. Combustion and Flame, 2022, 238, 111880.	5.2	2
62	A Two-Dimensional Study on the Effect of Anisotropy on the Devolatilization of a Large Wood Log. Energies, 2019, 12, 4430.	3.1	1
63	Bed Model for Grate-Fired Furnaces: Computational Fluid Dynamics Modeling and Comparison to Experiments. Energy & Fuels, 2022, 36, 5852-5867.	5.1	1