

Ville A Vuorinen

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,134
citations

257450

24
h-index

289244

40
g-index

90
all docs

90
docs citations

90
times ranked

1596
citing authors

#	ARTICLE	IF	CITATIONS
1	Large-eddy simulation of diesel pilot spray ignition in lean methane-air and methanol-air mixtures at different ambient temperatures. <i>International Journal of Engine Research</i> , 2023, 24, 965-981.	2.3	6
2	Parametric CFD study for finding the optimal tube arrangement of a fin-and-tube heat exchanger with plain fins in a marine environment. <i>Applied Thermal Engineering</i> , 2022, 200, 117642.	6.0	6
3	Full-scale ship stern wave with the modelled and resolved turbulence including the hull roughness effect. <i>Ocean Engineering</i> , 2022, 245, 110434.	4.3	1
4	Fast reactive flow simulations using analytical Jacobian and dynamic load balancing in OpenFOAM. <i>Physics of Fluids</i> , 2022, 34, .	4.0	16
5	Large-eddy simulation of split injection strategies in RCCI conditions. <i>Combustion Theory and Modelling</i> , 2022, 26, 590-611.	1.9	2
6	Effects of hydrogen enrichment and turbulence intensity on the combustion mode in locally stratified dual-fuel mixtures of n-dodecane/methane. <i>Applications in Energy and Combustion Science</i> , 2022, 10, 100072.	1.5	2
7	A three-dimensional conjugate heat transfer model for methanol synthesis in a modular millireactor. <i>Chemical Engineering Science</i> , 2022, 258, 117765.	3.8	2
8	Large eddy simulation of diesel spray-assisted dual-fuel ignition: A comparative study on two n-dodecane mechanisms at different ambient temperatures. <i>International Journal of Engine Research</i> , 2021, 22, 2521-2532.	2.3	11
9	Waste heat recovery from a data centre and 5G smart poles for low-temperature district heating network. <i>Energy</i> , 2021, 218, 119468.	8.8	29
10	Large-eddy simulation of tri-fuel ignition: diesel spray-assisted ignition of lean hydrogen-methane-air mixtures. <i>Combustion Theory and Modelling</i> , 2021, 25, 436-459.	1.9	9
11	Shear localization in large amplitude oscillatory shear (LAOS) flows of particulate suspensions. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	0
12	Scaling effects on the free surface backward facing step flow. <i>Physics of Fluids</i> , 2021, 33, .	4.0	9
13	Effects of ethane addition on diesel-methane dual-fuel combustion in a heavy-duty engine. <i>Fuel</i> , 2021, 289, 119834.	6.4	10
14	A numerical performance study of a fixed-bed reactor for methanol synthesis by CO ₂ hydrogenation. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 15635-15648.	7.1	15
15	Large-eddy simulation of spray assisted dual-fuel ignition under reactivity-controlled dynamic conditions. <i>Fuel</i> , 2021, 293, 120295.	6.4	13
16	Experimental study on tri-fuel combustion using premixed methane-hydrogen mixtures ignited by a diesel pilot. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 21182-21197.	7.1	17
17	Large-eddy simulation of tri-fuel combustion: Diesel spray assisted ignition of methanol-hydrogen blends. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 21687-21703.	7.1	22
18	Effect of pilot fuel properties on engine performance and combustion stability in a tri-fuel engine powered by premixed methane-hydrogen and diesel pilot. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 37469-37486.	7.1	12

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19	DLBFoam: An open-source dynamic load balancing model for fast reacting flow simulations in OpenFOAM. <i>Computer Physics Communications</i> , 2021, 267, 108073.	7.5	32
20	Effects of blending 2,5-dimethylfuran and dimethyl ether to toluene primary reference fuels: A chemical kinetic study. <i>Fuel</i> , 2021, 304, 121401.	6.4	4
21	Efficient storage and recovery of waste heat by phase change material embedded within additively manufactured grid heat exchangers. <i>International Journal of Heat and Mass Transfer</i> , 2021, 181, 121846.	4.8	24
22	Polymer drag reduction in surfactant-contaminated turbulent bubbly channel flows. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	1
23	An artificial intelligence based-model for heat transfer modeling of 5G smart poles. <i>Case Studies in Thermal Engineering</i> , 2021, 28, 101613.	5.7	1
24	Modelling aerosol-based exposure to SARS-CoV-2 by an agent based Monte Carlo method: Risk estimates in a shop and bar. <i>PLoS ONE</i> , 2021, 16, e0260237.	2.5	9
25	The effect of fuel on high velocity evaporating fuel sprays: Large-Eddy simulation of Spray A with various fuels. <i>International Journal of Engine Research</i> , 2020, 21, 26-42.	2.3	29
26	Deposition of dry particles on a fin-and-tube heat exchanger by a coupled soft-sphere DEM and CFD. <i>International Journal of Heat and Mass Transfer</i> , 2020, 149, 119046.	4.8	10
27	The ghost fluid method for OpenFOAM: A comparative study in marine context. <i>Ocean Engineering</i> , 2020, 216, 108007.	4.3	9
28	A computational fluid dynamics study by conjugate heat transfer in OpenFOAM: A liquid cooling concept for high power electronics. <i>International Journal of Heat and Fluid Flow</i> , 2020, 85, 108654.	2.4	28
29	Large-Eddy Simulation of ECN Spray A: Sensitivity Study on Modeling Assumptions. <i>Energies</i> , 2020, 13, 3360.	3.1	18
30	Numerical study of bubbly flow in a swirl atomizer. <i>Physics of Fluids</i> , 2020, 32, .	4.0	10
31	Safe and Sustainable Design of Composite Smart Poles for Wireless Technologies. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7594.	2.5	3
32	Computational and experimental investigation of a swirl nozzle for viscous fluids. <i>International Journal of Multiphase Flow</i> , 2020, 128, 103278.	3.4	18
33	Modelling aerosol transport and virus exposure with numerical simulations in relation to SARS-CoV-2 transmission by inhalation indoors. <i>Safety Science</i> , 2020, 130, 104866.	4.9	349
34	Large-eddy simulation of dual-fuel spray ignition at different ambient temperatures. <i>Combustion and Flame</i> , 2020, 215, 51-65.	5.2	48
35	A numerical study on combustion mode characterization for locally stratified dual-fuel mixtures. <i>Combustion and Flame</i> , 2020, 214, 121-135.	5.2	29
36	Numerical study on tri-fuel combustion: Ignition properties of hydrogen-enriched methane-diesel and methanol-diesel mixtures. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4946-4962.	7.1	28

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37	Integrated study of flue gas flow and superheating process in a recovery boiler using computational fluid dynamics and 1D-process modeling. Tappi Journal, 2020, 19, 303-316.	0.5	1
38	A parametric investigation of diesel/methane dual-fuel combustion progression/stages in a heavy-duty optical engine. Applied Energy, 2019, 251, 113191.	10.1	39
39	Large-Eddy Simulation of local heat transfer in plate and pin fin heat exchangers confined in a pipe flow. International Journal of Heat and Mass Transfer, 2019, 134, 641-655.	4.8	19
40	Modeling cycle-to-cycle variations in spark ignited combustion engines by scale-resolving simulations for different engine speeds. Applied Energy, 2019, 250, 801-820.	10.1	28
41	A large-eddy simulation study on the influence of diesel pilot spray quantity on methane-air flame initiation. Combustion and Flame, 2019, 206, 506-521.	5.2	41
42	Large-eddy simulation of dual-fuel ignition: Diesel spray injection into a lean methane-air mixture. Combustion and Flame, 2019, 199, 131-151.	5.2	82
43	Analysis of viscous fluid flow in a pressure-swirl atomizer using large-eddy simulation. International Journal of Multiphase Flow, 2019, 113, 371-388.	3.4	36
44	Numerical study on the fluid dynamical aspects of atomic layer deposition process. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	15
45	Computational fluid dynamics modeling and experimental validation of heat transfer and fluid flow in the recovery boiler superheater region. Applied Thermal Engineering, 2018, 139, 222-238.	6.0	20
46	Large-eddy simulation on the influence of injection pressure in reacting Spray A. Combustion and Flame, 2018, 191, 142-159.	5.2	91
47	Large-eddy simulations for hill terrains: validation with wind-tunnel and field measurements. Computational and Applied Mathematics, 2018, 37, 2017-2038.	1.3	8
48	Numerical assessment of wall modelling approaches in scale-resolving in-cylinder simulations. International Journal of Heat and Fluid Flow, 2018, 74, 154-172.	2.4	7
49	Flow and thermal field effects on cycle-to-cycle variation of combustion: scale-resolving simulation in a spark ignited simplified engine configuration. Applied Energy, 2018, 230, 486-505.	10.1	25
50	Optimizing the heat transfer performance of the recovery boiler superheaters using simulated annealing, surrogate modeling, and computational fluid dynamics. Energy, 2018, 160, 361-377.	8.8	24
51	Consistently formulated eddy-viscosity coefficient for $k-\epsilon$ -equation model. Journal of Turbulence, 2018, 19, 959-994.	1.4	8
52	Hybrid LES/RANS with wall treatment in tangential and impinging flow configurations. International Journal of Heat and Fluid Flow, 2017, 65, 141-158.	2.4	10
53	Comparative study on chemical kinetic schemes for dual-fuel combustion of n-dodecane/methane blends. Fuel, 2017, 191, 62-76.	6.4	30
54	Mixing and evaporation analysis of a high-pressure SCR system using a hybrid LES-RANS approach. Energy, 2017, 120, 827-841.	8.8	27

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55	Late post-injection of biofuel blends in an optical diesel engine: Experimental and theoretical discussion on the inevitable wall-wetting effects on oil dilution. <i>International Journal of Engine Research</i> , 2017, 18, 645-656.	2.3	6
56	Influence of mesh deformation on the quality of large eddy simulations. <i>International Journal for Numerical Methods in Fluids</i> , 2016, 82, 171-197.	1.6	8
57	Nonlinear time series analysis from large eddy simulation of an internal combustion engine. <i>International Journal of Heat and Fluid Flow</i> , 2016, 57, 79-90.	2.4	8
58	Implicit LES Applied to Isothermal Swirling Coaxial Jets. , 2016, , .		0
59	Large Eddy Simulation of n-dodecane spray flames using Flamelet Generated Manifolds. <i>Combustion and Flame</i> , 2016, 167, 113-131.	5.2	124
60	Mixture formation in a direct injection gas engine: Numerical study on nozzle type, injection pressure and injection timing effects. <i>Energy</i> , 2016, 94, 542-556.	8.8	49
61	DNSLab: A gateway to turbulent flow simulation in Matlab. <i>Computer Physics Communications</i> , 2016, 203, 278-289.	7.5	18
62	Effect of charge air temperature on E85 dual-fuel diesel combustion. <i>Fuel</i> , 2015, 153, 6-12.	6.4	35
63	Large eddy simulation of a piston-cylinder assembly: The sensitivity of the in-cylinder flow field for residual intake and in-cylinder velocity structures. <i>Computers and Fluids</i> , 2015, 122, 123-135.	2.5	17
64	Imbalance wall functions with density and material property variation effects applied to engine heat transfer computational fluid dynamics simulations. <i>International Journal of Engine Research</i> , 2014, 15, 307-324.	2.3	18
65	On the implementation of low-dissipative Runge-Kutta projection methods for time dependent flows using OpenFOAM®. <i>Computers and Fluids</i> , 2014, 93, 153-163.	2.5	65
66	Large-eddy simulation on the effect of injection pressure and density on fuel jet mixing in gas engines. <i>Fuel</i> , 2014, 130, 241-250.	6.4	45
67	Visualization and analysis of the characteristics of transitional underexpanded jets. <i>International Journal of Heat and Fluid Flow</i> , 2013, 44, 140-154.	2.4	66
68	LARGE EDDY SIMULATION OF HIGH GAS DENSITY EFFECTS IN FUEL SPRAYS. <i>Atomization and Sprays</i> , 2013, 23, 297-325.	0.8	21
69	LARGE EDDY SIMULATION OF HIGH-VELOCITY FUEL SPRAYS: STUDYING MESH RESOLUTION AND BREAKUP MODEL EFFECTS FOR SPRAY A. <i>Atomization and Sprays</i> , 2013, 23, 419-442.	0.8	58
70	A low-dissipative, scale-selective discretization scheme for the Navier-Stokes equations. <i>Computers and Fluids</i> , 2012, 70, 195-205.	2.5	49
71	An experimental investigation on the flow structure and mixture formation of low pressure ratio wall-impinging jets by a natural gas injector. <i>Journal of Natural Gas Science and Engineering</i> , 2012, 9, 1-10.	4.4	30
72	Large Eddy Simulation of the Intake Flow in a Realistic Single Cylinder Configuration. , 2012, , .		8

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73	Large-Eddy Simulation of Subsonic Jets. Journal of Physics: Conference Series, 2011, 318, 032052.	0.4	9
74	Experimental investigation of characteristics of transient low pressure wall-impinging gas jet. Journal of Physics: Conference Series, 2011, 318, 032047.	0.4	5
75	LARGE EDDY SIMULATION OF DROPLET STOKES NUMBER EFFECTS ON MIXTURE QUALITY IN FUEL SPRAYS. Atomization and Sprays, 2010, 20, 435-451.	0.8	8
76	LARGE EDDY SIMULATION OF DROPLET STOKES NUMBER EFFECTS ON TURBULENT SPRAY SHAPE. Atomization and Sprays, 2010, 20, 93-114.	0.8	20
77	DIESEL SPRAY VISUALIZATION AND SHOCKWAVES. Atomization and Sprays, 2010, 20, 177-189.	0.8	9
78	Effect of droplet size and breakup on spray shape: a priori study using Large-Eddy Simulation. , 2009, , .		0
79	Large-Eddy Simulation of Particle Size Distribution Effects on Turbulence in Sprays. , 2008, , .		3
80	Large-Eddy Simulation on the Effect of Droplet Size Distribution on Mixing of Passive Scalar in a Spray. , 2008, , .		6
81	Front roughening in three-dimensional imbibition. European Physical Journal B, 2007, 56, 15-26.	1.5	14
82	Near Nozzle Diesel Spray Modeling and X-Ray Measurements. , 2006, , .		4
83	Host-parasite models on graphs. Physical Review E, 2005, 72, 046134.	2.1	6
84	Networks in metapopulation dynamics. European Physical Journal B, 2004, 38, 261-268.	1.5	11
85	Large Eddy Simulation of Flow over a Valve in a Simplified Cylinder Geometry. , 0, , .		5
86	An Experimental Study on High Pressure Pulsed Jets for DI Gas Engine Using Planar Laser-Induced Fluorescence. , 0, , .		27
87	Characteristics of High Pressure Jets for Direct Injection Gas Engine. SAE International Journal of Fuels and Lubricants, 0, 6, 149-156.	0.2	13
88	An Optical Characterization of Dual-Fuel Combustion in a Heavy-Duty Diesel Engine. , 0, , .		19
89	Analysis of Gasoline Surrogate Combustion Chemistry with a Skeletal Mechanism. , 0, , .		6
90	A Diagnostic Approach to Assess the Effect of Temperature Stratification on the Combustion Modes of Gasoline Surrogates. Combustion Science and Technology, 0, , 1-32.	2.3	1