

Kemal Hanjalic

List of Publications by Year in descending order

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125
papers

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66234

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133
all docs

133
docs citations

133
times ranked

2796
citing authors

#	ARTICLE	IF	CITATIONS
1	Active heat transfer and flow control over a cylinder by rotary oscillations. AIP Conference Proceedings, 2021, , .	0.3	1
2	Reassessment of modeling turbulence via Reynolds averaging: A review of second-moment transport strategy. Physics of Fluids, 2021, 33, .	1.6	9
3	In Memoriam - Graham de Vahl Davis. International Journal of Heat and Mass Transfer, 2020, 152, 119486.	2.5	0
4	Heat transfer in flow around a rotary oscillating cylinder at a high subcritical Reynolds number: A computational study. International Journal of Heat and Fluid Flow, 2019, 79, 108441.	1.1	11
5	River-Induced Anomalies in Seasonal Variation of Traffic-Emitted CO Distribution over the City of Krasnoyarsk. Atmosphere, 2019, 10, 407.	1.0	8
6	On Impact of Helical Structures on Stabilization of Swirling Flames with Vortex Breakdown. Flow, Turbulence and Combustion, 2019, 103, 887-911.	1.4	15
7	Numerical simulation of coal-air mixture flow in a real double-swirl burner and implications on combustion anomalies in a utility boiler. Energy, 2019, 170, 942-953.	4.5	23
8	Effects of reburning mechanically-activated micronized coal on reduction of NOx: Computational study of a real-scale tangentially-fired boiler. Fuel, 2018, 214, 215-229.	3.4	26
9	Unsteady regimes and pressure pulsations in draft tube of a model hydro turbine in a range of off-design conditions. Experimental Thermal and Fluid Science, 2018, 91, 410-422.	1.5	50
10	Manipulating cavitation by a wall jet: Experiments on a 2D hydrofoil. International Journal of Multiphase Flow, 2018, 99, 312-328.	1.6	32
11	Control of flow around a cylinder by rotary oscillations at a high subcritical Reynolds number. Journal of Fluid Mechanics, 2018, 855, 236-266.	1.4	25
12	Numerical Study of Winter Diurnal Convection Over the City of Krasnoyarsk: Effects of Non-freezing River, Undulating Fog and Steam Devils. Boundary-Layer Meteorology, 2017, 163, 469-495.	1.2	29
13	Vortex ropes in draft tube of a laboratory Kaplan hydroturbine at low load: an experimental and LES scrutiny of RANS and DES computational models. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 668-685.	0.7	19
14	Academician Alexander Ivanovich Leontiev on his 90th birthday. International Journal of Heat and Mass Transfer, 2017, 109, 689.	2.5	0
15	Large-eddy simulations of heat transfer in asymmetric rib-roughened ducts: Effects of rotation. International Journal of Heat and Fluid Flow, 2017, 68, 373-385.	1.1	13
16	On coherent structures and mixing characteristics in the near field of a rotating-pipe jet. International Journal of Heat and Fluid Flow, 2017, 63, 139-148.	1.1	6
17	Vortical structures and pressure pulsations in draft tube of a Francis-99 turbine at part load: RANS and hybrid RANS/LES analysis. International Journal of Heat and Fluid Flow, 2017, 63, 158-171.	1.1	27
18	Laboratory modeling of flow regimes in a draft tube of Francis hydro-turbine. EPJ Web of Conferences, 2017, 143, 02103.	0.1	2

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19	Cavitation on NACA0015 hydrofoils with different wall roughness: high-speed visualization of the surface texture effects. <i>Journal of Visualization</i> , 2016, 19, 587-590.	1.1	23
20	Scrutinizing URANS in Shedding Flows: The Case of Cylinder in Cross-Flow in the Subcritical Regime. <i>Flow, Turbulence and Combustion</i> , 2016, 97, 1017-1046.	1.4	47
21	Helical modes in low- and high-swirl jets measured by tomographic PIV. <i>Journal of Turbulence</i> , 2016, 17, 678-698.	0.5	28
22	Ground Boundary Conditions for Thermal Convection Over Horizontal Surfaces at High Rayleigh Numbers. <i>Boundary-Layer Meteorology</i> , 2016, 160, 41-61.	1.2	9
23	Comparative analysis of twin vortex ropes in laboratory models of two hydro-turbine draft-tubes. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2016, 54, 450-460.	0.7	38
24	Cavitating flow around a scaled-down model of guide vanes of a high-pressure turbine. <i>International Journal of Multiphase Flow</i> , 2016, 78, 75-87.	1.6	30
25	LES Investigation of the Hysteresis Regime in the Cold Model of a Rotating-Pipe Swirl Burner. <i>Flow, Turbulence and Combustion</i> , 2015, 94, 175-198.	1.4	9
26	Effects of rotation on flow in an asymmetric rib-roughened duct: LES study. <i>International Journal of Heat and Fluid Flow</i> , 2015, 55, 104-119.	1.1	21
27	On dynamics and secondary currents in meandering confined turbulent shallow jet. <i>International Journal of Heat and Fluid Flow</i> , 2015, 56, 284-289.	1.1	10
28	Mechanical activation of micronized coal: Prospects for new combustion applications. <i>Applied Thermal Engineering</i> , 2015, 74, 174-181.	3.0	30
29	Cavitation on a semicircular leading-edge plate and NACA0015 hydrofoil: Visualization and velocity measurement. <i>Thermal Engineering (English Translation of Teploenergetika)</i> , 2014, 61, 1007-1014.	0.4	4
30	Comparative analysis of low- and high-swirl confined flames and jets by proper orthogonal and dynamic mode decompositions. <i>Physics of Fluids</i> , 2014, 26, .	1.6	73
31	Autothermal combustion of mechanically-activated micronized coal in a 5MW pilot-scale combustor. <i>Fuel</i> , 2014, 122, 103-111.	3.4	38
32	Computational modeling of autothermal combustion of mechanically-activated micronized coal. <i>Fuel</i> , 2014, 135, 443-458.	3.4	30
33	High-speed visualization and PIV measurements of cavitating flows around a semi-circular leading-edge flat plate and NACA0015 hydrofoil. <i>International Journal of Multiphase Flow</i> , 2014, 60, 119-134.	1.6	103
34	High-speed imaging of cavitation regimes on a round-leading-edge flat plate and NACA0015 hydrofoil. <i>Journal of Visualization</i> , 2013, 16, 181-184.	1.1	11
35	Determining instability modes in a gas flame. <i>Technical Physics Letters</i> , 2013, 39, 308-311.	0.2	5
36	Experimental study and analytical reconstruction of precessing vortex in a tangential swirler. <i>International Journal of Heat and Fluid Flow</i> , 2013, 42, 251-264.	1.1	66

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37	Characterization of the flame blow-off conditions in a laminar boundary layer with hydrogen injection. <i>Combustion and Flame</i> , 2013, 160, 1999-2008.	2.8	18
38	LES of turbulent flow in a concentric annulus with rotating outer wall. <i>International Journal of Heat and Fluid Flow</i> , 2013, 43, 74-84.	1.1	20
39	On the Application of the Levenberg-Marquardt Method in Conjunction with an Explicit Runge-Kutta and an Implicit Rosenbrock Method to Assess Burning Velocities from Confined Deflagrations. <i>Flow, Turbulence and Combustion</i> , 2013, 91, 281-317.	1.4	16
40	Experimental and numerical simulation for swirl flow in a combustor. <i>Thermal Engineering (English)</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 0,4 6		
41	Expanding the Stability Range of a Lifted Propane Flame by Resonant Acoustic Excitation. <i>Combustion Science and Technology</i> , 2013, 185, 1644-1666.	1.2	7
42	Leray- ϵ Regularization of the Smagorinsky-Closed Filtered Equations for Turbulent Jets at High Reynolds Numbers. <i>Flow, Turbulence and Combustion</i> , 2012, 89, 627-650.	1.4	13
43	Modelling of particles deposition in an environment relevant to solid fuel boilers. <i>Applied Thermal Engineering</i> , 2012, 49, 131-138.	3.0	40
44	Vortex structures and heat transfer in a wall-bounded pin matrix: LES with a RANS wall-treatment. <i>International Journal of Heat and Fluid Flow</i> , 2010, 31, 740-753.	1.1	47
45	Tackling complex turbulent flows with transient RANS. <i>Fluid Dynamics Research</i> , 2009, 41, 012201.	0.6	28
46	Numerical and experimental study of electromagnetically driven vortical flows. <i>International Journal of Heat and Fluid Flow</i> , 2009, 30, 494-504.	1.1	15
47	Vortices and heat flux around a wall-mounted cube cooled simultaneously by a jet and a crossflow. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 4047-4062.	2.5	27
48	URANS of flow and endwall heat transfer in a pinned passage relevant to gas-turbine blade cooling. <i>International Journal of Heat and Fluid Flow</i> , 2009, 30, 549-560.	1.1	32
49	Hysteresis and transition in swirling nonpremixed flames. <i>Combustion and Flame</i> , 2009, 156, 447-459.	2.8	24
50	Some developments in turbulence modeling for wind and environmental engineering. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2008, 96, 1537-1570.	1.7	48
51	Heat transfer correlation for hexagonal and in-line arrays of impinging jets. <i>International Journal of Heat and Mass Transfer</i> , 2008, 51, 5389-5399.	2.5	71
52	Vortical structures and heat transfer in a round impinging jet. <i>Journal of Fluid Mechanics</i> , 2008, 596, 221-260.	1.4	277
53	Numerical Simulation of a Turbulent Magnetic Dynamo. <i>Physical Review Letters</i> , 2007, 98, 104501.	2.9	34
54	Numerical insights into magnetic dynamo action in a turbulent regime. <i>New Journal of Physics</i> , 2007, 9, 306-306.	1.2	18

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55	Computations of a turbulent wake in a strong adverse pressure gradient. International Journal of Heat and Fluid Flow, 2007, 28, 418-428.	1.1	13
56	Large-eddy simulations of flow over a jet-impinged wall-mounted cube in a cross stream. International Journal of Heat and Fluid Flow, 2007, 28, 1360-1378.	1.1	25
57	Compound Wall Treatment for RANS Computation of Complex Turbulent Flows and Heat Transfer. Flow, Turbulence and Combustion, 2007, 78, 177-202.	1.4	189
58	Computation of tip-leakage flow in a linear compressor cascade with a second-moment turbulence closure. International Journal of Heat and Fluid Flow, 2007, 28, 587-601.	1.1	33
59	Large-eddy simulation and deduced scaling analysis of Rayleigh-Bénard convection up to $Ra = 10^9$. Journal of Turbulence, 2006, 7, N66.	0.5	31
60	Wall imprint of turbulent structures and heat transfer in multiple impinging jet arrays. Journal of Fluid Mechanics, 2006, 546, 255.	1.4	61
61	LES, T-RANS and hybrid simulations of thermal convection at high Ra numbers. International Journal of Heat and Fluid Flow, 2006, 27, 800-810.	1.1	55
62	Coupled fluid-flow and magnetic-field simulation of the Riga dynamo experiment. Physics of Plasmas, 2006, 13, 122308.	0.7	19
63	Prediction of Cascade Flows With Innovative Second-Moment Closures. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 1059-1070.	0.8	18
64	Contribution to elliptic relaxation modelling of turbulent natural and mixed convection. International Journal of Heat and Fluid Flow, 2005, 26, 569-586.	1.1	103
65	Synergy of experiments and computer simulations in research of turbulent convection. International Journal of Heat and Fluid Flow, 2005, 26, 828-842.	1.1	9
66	Dynamic simulation of pollutant dispersion over complex urban terrains: A tool for sustainable development, control and management*1. Energy, 2005, 30, 1481-1497.	4.5	19
67	A KIVA code with Reynolds-stress model for engine flow simulation. Energy, 2005, 30, 427-445.	4.5	12
68	A hybrid two-layer URANS-LES approach for large eddy simulation at high Reynolds numbers. International Journal of Heat and Fluid Flow, 2005, 26, 173-190.	1.1	139
69	Particle imaging velocimetry-based identification of coherent structures in normally impinging multiple jets. Physics of Fluids, 2005, 17, 055105.	1.6	46
70	Unstructured large eddy and conjugate heat transfer simulations of wall-bounded flows. WIT Transactions on State-of-the-art in Science and Engineering, 2005, , 30-68.	0.0	10
71	A PERSPECTIVE ON COMBINING RANS AND LES FOR COMPUTING COMPLEX FLOWS AND HEAT TRANSFER(Keynote Lecture). The Proceedings of the International Conference on Jets Wakes and Separated Flows (ICJWSF), 2005, 2005, 25-34.	0.1	0
72	A direct-numerical-simulation-based second-moment closure for turbulent magnetohydrodynamic flows. Physics of Fluids, 2004, 16, 1229-1241.	1.6	34

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73	Visualization of turbulence structures reorganization in thermal convection subjected to external magnetic field. <i>Journal of Visualization</i> , 2004, 7, 6-6.	1.1	0
74	Visualization of air flow and smoke spreading for realistic indoor-climate situations. <i>Journal of Visualization</i> , 2004, 7, 268-268.	1.1	1
75	Large eddy simulations of turbulent thermal convection at high Rayleigh number. <i>Journal of Visualization</i> , 2004, 7, 105-105.	1.1	0
76	A robust near-wall elliptic-relaxation eddy-viscosity turbulence model for CFD. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 1047-1051.	1.1	416
77	Experimental investigation of impinging jet arrays. <i>Experiments in Fluids</i> , 2004, 36, 946-958.	1.1	107
78	Measurement of velocity-temperature correlations in a turbulent diffusion flame. <i>Experiments in Fluids</i> , 2004, 37, 364-374.	1.1	13
79	A two-scale second-moment turbulence closure based on weighted spectrum integration. <i>Theoretical and Computational Fluid Dynamics</i> , 2004, 18, 1-26.	0.9	17
80	Numerical simulation of magnetic control of heat transfer in thermal convection. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 559-568.	1.1	45
81	Estimation of shape factor for transient conduction. <i>International Journal of Refrigeration</i> , 2003, 26, 360-367.	1.8	12
82	Symmetry breaking of flow and heat transfer in multiple impinging jets. <i>International Journal of Heat and Fluid Flow</i> , 2003, 24, 444-453.	1.1	39
83	Experiments on a rotating-pipe swirl burner. <i>Experimental Thermal and Fluid Science</i> , 2003, 27, 481-489.	1.5	31
84	Elliptic blending model: A new near-wall Reynolds-stress turbulence closure. <i>Physics of Fluids</i> , 2002, 14, 744-754.	1.6	242
85	ONE-POINTCLOSUREMODELS FORBUOYANCY-DRIVENTURBULENTFLOWS. <i>Annual Review of Fluid Mechanics</i> , 2002, 34, 321-347.	10.8	120
86	Modeling Rotating and Swirling Turbulent Flows: A Perpetual Challenge. <i>AIAA Journal</i> , 2002, 40, 1984-1996.	1.5	170
87	A new approach to modelling near-wall turbulence energy and stress dissipation. <i>Journal of Fluid Mechanics</i> , 2002, 459, 139-166.	1.4	147
88	Determination of the laminar burning velocity and the Markstein length of powder-air flames. <i>Powder Technology</i> , 2002, 122, 222-238.	2.1	39
89	Heat transfer of phase-locked modulated impinging-jet arrays. <i>Experimental Thermal and Fluid Science</i> , 2002, 26, 299-304.	1.5	2
90	Turbulent heat transfer from a multi-layered wall-mounted cube matrix: a large eddy simulation. <i>International Journal of Heat and Fluid Flow</i> , 2002, 23, 173-185.	1.1	58

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91	Simulation and Identification of Deterministic Structures in Thermal and Magnetic Convection. Annals of the New York Academy of Sciences, 2002, 972, 19-28.	1.8	4
92	Experimental study of the convective heat transfer from in-line and staggered configurations of two wall-mounted cubes. International Journal of Heat and Mass Transfer, 2002, 45, 465-482.	2.5	60
93	Modeling rotating and swirling turbulent flows - A perpetual challenge. AIAA Journal, 2002, 40, 1984-1996.	1.5	6
94	Computational study of turbulent natural convection in a side-heated near-cubic enclosure at a high Rayleigh number. International Journal of Heat and Mass Transfer, 2001, 44, 2323-2344.	2.5	64
95	Title is missing!. Flow, Turbulence and Combustion, 2001, 66, 427-451.	1.4	50
96	A new form of the elliptic relaxation equation to account for wall effects in RANS modeling. Physics of Fluids, 2000, 12, 2345-2351.	1.6	40
97	On the implementation of effects of Lorentz force in turbulence closure models. International Journal of Heat and Fluid Flow, 2000, 21, 329-337.	1.1	72
98	DNS, experimental and modelling study of axially compressed in-cylinder swirling flow. International Journal of Heat and Fluid Flow, 2000, 21, 627-639.	1.1	11
99	Separation-Induced Transition to Turbulence: Second-Moment Closure Modelling. Flow, Turbulence and Combustion, 2000, 63, 153-173.	1.4	23
100	Second-Moment Closure Model for IC Engine Flow Simulation Using Kiva Code1. Journal of Engineering for Gas Turbines and Power, 2000, 122, 355-363.	0.5	16
101	Convective rolls and heat transfer in finite-length Rayleigh-Bénard convection: A two-dimensional numerical study. Physical Review E, 2000, 62, 7987-7998.	0.8	57
102	Experimental Study of the Local Convection Heat Transfer From a Wall-Mounted Cube in Turbulent Channel Flow. Journal of Heat Transfer, 1999, 121, 564-573.	1.2	98
103	Transient analysis of Rayleigh-Bénard convection with a RANS model. International Journal of Heat and Fluid Flow, 1999, 20, 329-340.	1.1	76
104	Vortex structure and heat transfer in turbulent flow over a wall-mounted matrix of cubes. International Journal of Heat and Fluid Flow, 1999, 20, 255-267.	1.1	125
105	Identification and visualization of coherent structures in rayleigh-bénard convection with a time-dependent RANS. Journal of Visualization, 1999, 2, 169-176.	1.1	7
106	A DNS-based thermal second-moment closure for buoyant convection at vertical walls. Journal of Fluid Mechanics, 1999, 391, 211-247.	1.4	24
107	Local convective heat transfer from an array of wall-mounted cubes. International Journal of Heat and Mass Transfer, 1998, 41, 335-346.	2.5	67
108	Double-diffusive natural convection in trapezoidal enclosures. International Journal of Heat and Mass Transfer, 1998, 41, 1885-1898.	2.5	37

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109	Contribution towards the second-moment closure modelling of separating turbulent flows. Computers and Fluids, 1998, 27, 137-156.	1.3	108
110	Expanding the limits of "equilibrium" second-moment turbulence closures. Fluid Dynamics Research, 1997, 20, 25-41.	0.6	35
111	Application of infrared thermography to the evaluation of local convective heat transfer on arrays of cubical protrusions. International Journal of Heat and Fluid Flow, 1997, 18, 152-159.	1.1	29
112	A comparative assessment of the second-moment differential and algebraic models in turbulent natural convection. International Journal of Heat and Fluid Flow, 1997, 18, 4-14.	1.1	51
113	Modeling the dynamics of double-diffusive scalar fields at various stability conditions. International Journal of Heat and Fluid Flow, 1997, 18, 360-367.	1.1	9
114	Natural convection in partitioned two-dimensional enclosures at higher Rayleigh numbers. International Journal of Heat and Mass Transfer, 1996, 39, 1407-1427.	2.5	77
115	Some resolved and unresolved issues in modelling non-equilibrium and unsteady turbulent flows. , 1996, , 3-18.		13
116	Prediction of turbulent thermal convection in concentric and eccentric horizontal annuli. International Journal of Heat and Fluid Flow, 1995, 16, 429-439.	1.1	50
117	A computational study of joint effects of transverse shear and streamwise acceleration on three-dimensional boundary layers. International Journal of Heat and Fluid Flow, 1994, 15, 269-282.	1.1	12
118	Advanced turbulence closure models: a view of current status and future prospects. International Journal of Heat and Fluid Flow, 1994, 15, 178-203.	1.1	189
119	Computation of turbulent natural convection in rectangular enclosures with an algebraic flux model. International Journal of Heat and Mass Transfer, 1993, 36, 3603-3624.	2.5	46
120	A model of stress dissipation in second-moment closures. Flow, Turbulence and Combustion, 1993, 51, 513-518.	0.2	29
121	Investigation of the influence of oil injection upon the screw compressor working process. International Journal of Refrigeration, 1992, 15, 206-220.	1.8	65
122	Contribution towards modelling of two-stage reciprocating compressors. International Journal of Mechanical Sciences, 1977, 19, 439-445.	3.6	7
123	Contribution towards a Reynolds-stress closure for low-Reynolds-number turbulence. Journal of Fluid Mechanics, 1976, 74, 593-610.	1.4	393
124	Fully developed asymmetric flow in a plane channel. Journal of Fluid Mechanics, 1972, 51, 301-335.	1.4	239
125	A Reynolds stress model of turbulence and its application to thin shear flows. Journal of Fluid Mechanics, 1972, 52, 609-638.	1.4	921