

# Keh-Chin Chang

## List of Publications by Year in descending order

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109  
papers

1,123  
citations

430874

18  
h-index

501196

28  
g-index

109  
all docs

109  
docs citations

109  
times ranked

754  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and Investigation of an Effective Solar Still Applicable to Remote Islands. <i>Water (Switzerland)</i> , 2022, 14, 703.	2.7	4
2	Energy Sustainability on an Offshore Island: A Case Study in Taiwan. <i>Energies</i> , 2022, 15, 2258.	3.1	1
3	The Effect of Vortex Generators on Shock-Induced Boundary Layer Separation in a Transonic Convex-Corner Flow. <i>Aerospace</i> , 2021, 8, 157.	2.2	12
4	Micro-Vortex Generators on Transonic Convex-Corner Flow. <i>Aerospace</i> , 2021, 8, 268.	2.2	2
5	Solar energy-based water treatment system applicable to the remote areas: Case of Indonesia. <i>Journal of Water Sanitation and Hygiene for Development</i> , 2020, 10, 347-356.	1.8	4
6	Development of PIV measurement technique in turbulent flow laden with binary-size particle groups. <i>Journal of Mechanics</i> , 2020, 37, 161-171.	1.4	2
7	Investigation of Sheltering Effect on Global Solar Radiation Data Measured by Weather Stations. <i>E3S Web of Conferences</i> , 2019, 93, 02002.	0.5	0
8	Improved design of dust test chamber for uniform distribution of dust sedimentation rate. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2019, 42, 236-243.	1.1	0
9	Computational Studies of Near-Wall Behaviors of Low-Reynolds-Number Reynolds-Stress Models. <i>AIAA Journal</i> , 2019, 57, 279-296.	2.6	9
10	The Impact of Subsidy Programs for Solar Thermal Applications: A Case Study for a Remote Island. <i>Energies</i> , 2019, 12, 3944.	3.1	5
11	Multi-block adaptive mesh refinement (AMR) for a lattice Boltzmann solver using GPUs. <i>Computers and Fluids</i> , 2018, 175, 48-52.	2.5	5
12	Solar water heaters as a pre-heating system for industrial processes. <i>Energy Efficiency</i> , 2018, 11, 755-760.	2.8	4
13	Monitoring investigation of solar diffuse fraction in Taiwan. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	3.3	3
14	Effect of diffuse solar radiation on the thermal performance of solar collectors. <i>Case Studies in Thermal Engineering</i> , 2018, 12, 759-764.	5.7	9
15	A lesson learned from the long-term subsidy program for solar water heaters in Taiwan. <i>Sustainable Cities and Society</i> , 2018, 41, 810-815.	10.4	13
16	Pitting corrosion behaviour of 2101 duplex stainless steel in chloride solutions. <i>Corrosion Engineering Science and Technology</i> , 2018, 53, 9-15.	1.4	16
17	Self-sustained oscillation for compressible cylindrical cavity flows. <i>Chinese Journal of Aeronautics</i> , 2017, 30, 1294-1299.	5.3	3
18	The Effect of Yaw Angle on a Compressible Rectangular Cavity Flow. <i>International Journal of Aerospace Engineering</i> , 2017, 2017, 1-13.	0.9	1

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19	The Impact of Water Quality on the Use of Solar Water Heaters in Remote Islands of Taiwan. Water (Switzerland), 2016, 8, 530.	2.7	7
20	SHOCK EXCURSION IN TRANSONIC CONVEX-CORNER FLOWS. International Journal of Modern Physics Conference Series, 2016, 42, 1660180.	0.7	0
21	VELOCITY MEASUREMENTS OF TURBULENT WAKE FLOW OVER A CIRCULAR CYLINDER. International Journal of Modern Physics Conference Series, 2016, 42, 1660182.	0.7	0
22	Perspectives for solar thermal applications in Taiwan. Energy Policy, 2016, 94, 25-28.	8.8	11
23	Economic aspects for solar thermal application in Taiwan. Sustainable Cities and Society, 2016, 26, 354-363.	10.4	11
24	Sustainable Development for Solar Heating Systems in Taiwan. Sustainability, 2015, 7, 1970-1984.	3.2	9
25	Energy Usage of Residents on Offshore Islands in Taiwan. Sustainability, 2015, 7, 6652-6664.	3.2	3
26	In-situ measurements of solar diffuse fraction in southern Taiwan. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2015, 38, 723-730.	1.1	6
27	Solar thermal application for the livestock industry in Taiwan. Case Studies in Thermal Engineering, 2015, 6, 251-257.	5.7	11
28	Incentives to using solar thermal energy in Taiwan. Renewables: Wind, Water, and Solar, 2015, 2, .	3.7	0
29	Payback period for residential solar water heaters in Taiwan. Renewable and Sustainable Energy Reviews, 2015, 41, 901-906.	16.4	39
30	Wind Loads of Solar Water Heaters: Wind Incidence Effect. Journal of Aerodynamics, 2014, 2014, 1-10.	0.1	7
31	Solar Heating in Taiwan. Energy Procedia, 2014, 57, 834-839.	1.8	0
32	Blockage effects on surface pressures: the case of an inclined flat plate with and without a guide plate. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2014, 37, 915-922.	1.1	0
33	Heat transfer simulation of a solar test stand. Applied Thermal Engineering, 2014, 72, 143-150.	6.0	0
34	Investigation of transonic bi-convex corner flows. Aerospace Science and Technology, 2014, 39, 22-30.	4.8	2
35	Modeling the hourly solar diffuse fraction in Taiwan. Renewable Energy, 2014, 66, 56-61.	8.9	24
36	Investigation on transonic round convex-corner flows. Aerospace Science and Technology, 2014, 37, 20-25.	4.8	3

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37	Re-evaluating wake width in turbulent shear flow behind an axisymmetric cylinder by means of higher order turbulence statistics. <i>Journal of Fluid Science and Technology</i> , 2014, 9, JFST0035-JFST0035.	0.6	5
38	A Modeling Study on Particle Dispersion in Wall-Bounded Turbulent Flows. <i>Advances in Applied Mathematics and Mechanics</i> , 2014, 6, 764-782.	1.2	2
39	Tunnel Background Noise on Compressible Convex-Corner Flows. <i>Journal of Aircraft</i> , 2013, 50, 1011-1015.	2.4	5
40	Wind loads on a residential solar water heater. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2013, 36, 870-877.	1.1	6
41	Solar thermal market in Taiwan. <i>Energy Policy</i> , 2013, 55, 477-482.	8.8	11
42	Dissemination of Solar Water Heaters in Taiwan: The Case of Remote Islands. <i>Energies</i> , 2013, 6, 5101-5113.	3.1	3
43	Inviscid and Viscous Interactions in Subsonic Corner Flows. <i>Scientific World Journal, The</i> , 2013, 2013, 1-6.	2.1	2
44	Effect of a vertical guide plate on the wind loading of an inclined flat plate. <i>Wind and Structures, an International Journal</i> , 2013, 17, 537-552.	0.8	5
45	Problems and methods of numerical and experimental investigation of high rise constructions' aerodynamics in the coastal region "sea-land". <i>Magazine of Civil Engineering</i> , 2013, 37, 54-61.	1.9	21
46	Field Surveys of Non-Residential Solar Water Heating Systems in Taiwan. <i>Energies</i> , 2012, 5, 258-269.	3.1	28
47	RE-EVALUATING MIXING LENGTH IN TURBULENT MIXING LAYER BY MEANS OF HIGH-ORDER STATISTICS OF VELOCITY FIELD. <i>International Journal of Modern Physics Conference Series</i> , 2012, 19, 154-165.	0.7	2
48	Flow Visualization and Wind Uplift Analysis of a Suspended Solar Water Heater. <i>Procedia Engineering</i> , 2012, 31, 3-8.	1.2	1
49	Performance of Thermosyphon Solar Water Heaters in Series. <i>Energies</i> , 2012, 5, 3266-3278.	3.1	27
50	Flow Similarity in Compressible Convex-Corner Flows. <i>AIAA Journal</i> , 2012, 50, 985-988.	2.6	12
51	Redefining Mixing Length in Turbulent Mixing Layer in Terms of Shear-Induced Vorticity. <i>Journal of Fluid Science and Technology</i> , 2011, 6, 662-673.	0.6	4
52	Wind loads on residential and large-scale solar collector models. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2011, 99, 59-64.	3.9	33
53	Subsidy programs on diffusion of solar water heaters: Taiwan's experience. <i>Energy Policy</i> , 2011, 39, 563-567.	8.8	39
54	Dissemination of solar water heaters in South Africa. <i>Journal of Energy in Southern Africa</i> , 2011, 22, 2-7.	0.8	7

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55	Experimental study on evolution of joint velocity PDF in planar mixing layer. <i>Experimental Thermal and Fluid Science</i> , 2010, 34, 1122-1132.	2.7	8
56	EXPERIMENTAL INVESTIGATION OF VELOCITY AUTOCORRELATION FUNCTIONS IN TURBULENT PLANAR MIXING LAYER. <i>Modern Physics Letters B</i> , 2010, 24, 1361-1364.	1.9	0
57	TURBULENCE MODULATION MEASUREMENTS IN A CHARGED MONODISPERSED DROPLET STREAM. <i>Chemical Engineering Communications</i> , 2009, 197, 158-168.	2.6	0
58	ESTIMATION OF CONVECTION SPEED THROUGH PIV MEASUREMENTS IN TURBULENT PLANAR MIXING LAYER. <i>Modern Physics Letters B</i> , 2009, 23, 353-356.	1.9	0
59	Local market of solar water heaters in Taiwan: Review and perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 2605-2612.	16.4	41
60	PIV measurements of turbulent flow in planar mixing layer. <i>Experimental Thermal and Fluid Science</i> , 2009, 33, 527-537.	2.7	23
61	Evaluation of Mixing Length in a Planar Mixing Layer Based on Shear-Induced Vortex Quantity. , 2009, , .		0
62	Analytical and numerical modeling of a spherical diffusion microflame. <i>Combustion, Explosion and Shock Waves</i> , 2008, 44, 1-8.	0.8	2
63	Specific features of combustion in a variable-section narrow channel with a periodically changing gas flow. <i>Combustion, Explosion and Shock Waves</i> , 2008, 44, 509-516.	0.8	3
64	Reduction of wind uplift of a solar collector model. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2008, 96, 1294-1306.	3.9	37
65	Outlook for solar water heaters in Taiwan. <i>Energy Policy</i> , 2008, 36, 66-72.	8.8	40
66	Volume fraction flux approximation in a two-fluid flow. <i>Thermophysics and Aeromechanics</i> , 2008, 15, 169-186.	0.5	10
67	Applicability Limit of Binary Collision Model in Dense Particle Flow. , 2008, , .		0
68	Performance Examination of Geometry-Independent Near-Wall Second-Moment Closures in Simple and Backstep Flows. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2007, 51, 179-204.	0.9	6
69	A Lagrangian modeling approach with the direct simulation Monte-Carlo method for inter-particle collisions in turbulent flow. <i>Advanced Powder Technology</i> , 2007, 18, 395-426.	4.1	7
70	Large Eddy Simulation of Turbulent Flow Laden With Binary Mixture of Particles. , 2007, , .		0
71	Solar water heaters in Taiwan. <i>Renewable Energy</i> , 2006, 31, 1299-1308.	8.9	31
72	A STUDY ON FLOW REGIME NEAR CRITICAL RAYLEIGH NUMBER FOR BUOYANCY-DRIVEN CAVITY FLOW. <i>Modern Physics Letters B</i> , 2005, 19, 1635-1638.	1.9	0

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73	Grid-Averaged Lagrangian Equations of Dispersed Phase in Dilute Two-Phase Flow. AIAA Journal, 2003, 41, 1292-1303.	2.6	3
74	Coefficients of Time and Length Scales of Turbulent Eddies. Journal of Mechanics, 2002, 18, 193-197.	1.4	0
75	Revisiting heat transfer analysis for rapid solidification of metal droplets. International Journal of Heat and Mass Transfer, 2001, 44, 1573-1583.	4.8	10
76	Inflow Conditions in Stochastic Eulerian-Lagrangian Calculations of Two-Phase Turbulent Flow. AIAA Journal, 2001, 39, 2100-2110.	2.6	2
77	Revisiting the Reynolds-averaged energy equation in near-wall turbulence models. International Journal of Heat and Mass Transfer, 2000, 43, 665-676.	4.8	11
78	Enhancement of Natural Convection by Eccentricity of Power Cable Inside Underground Conduit. Journal of Thermophysics and Heat Transfer, 2000, 14, 604-606.	1.6	1
79	Natural Convection Simulation Inside the Underground Conduit of an Electrical Power Cable. Journal of Thermophysics and Heat Transfer, 2000, 14, 557-565.	1.6	3
80	Two-Layer Approach Combining Reynolds Stress and Low-Reynolds-Number k-e Models. AIAA Journal, 1999, 37, 283-287.	2.6	1
81	Unsteady Drag Consideration in Stochastic Eulerian-Lagrangian Formulation of Two-Phase Flow. AIAA Journal, 1999, 37, 434-442.	2.6	5
82	Lagrangian Transport Equation of Fluctuating Kinetic Energy in the Dispersed Phase. International Journal of Fluid Mechanics Research, 1997, 24, 808-817.	0.4	1
83	TURBULENT FLOW CALCULATION WITH ORTHODOX QUICK SCHEME. Numerical Heat Transfer; Part A: Applications, 1996, 30, 589-604.	2.1	6
84	Calculation of wall heat transfer in pipeexpansion turbulent flows. International Journal of Heat and Mass Transfer, 1996, 39, 3813-3822.	4.8	25
85	LIMITATIONS OF THE STOCHASTIC APPROACH IN TWO-PHASE TURBULENT FLOW CALCULATIONS. Atomization and Sprays, 1996, 6, 211-225.	0.8	5
86	Theoretical investigation of transient droplet combustion by considering flame radiation. International Journal of Heat and Mass Transfer, 1995, 38, 2611-2621.	4.8	29
87	A study on two-phase turbulent structure of evaporating spray. , 1995, , .		0
88	A Modified Low-Reynolds-Number Turbulence Model Applicable to Recirculating Flow in Pipe Expansion. Journal of Fluids Engineering, Transactions of the ASME, 1995, 117, 417-423.	1.5	102
89	MODIFICATION OF THE $\hat{\nu}$ - $\hat{\mu}$ TURBULENCE MODEL FOR SWIRLING RECIRCULATING FLOW IN A PIPE EXPANSION. International Journal of Computational Fluid Dynamics, 1995, 5, 263-279.	1.2	2
90	SENSITIVITY STUDY ON MONTE CARLO SOLUTION PROCEDURE OF TWO-PHASE TURBULENT FLOW. Numerical Heat Transfer, Part B: Fundamentals, 1994, 25, 223-244.	0.9	19

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91	Application of a robust $\hat{\mu}$ -pdf treatment to analysis of thermal NO formation in nonpremixed hydrogen-air flame. <i>Combustion and Flame</i> , 1994, 98, 375-390.	5.2	29
92	Development of a hybrid $k-\epsilon$ turbulence model for swirling recirculating flows under moderate to strong swirl intensities. <i>International Journal for Numerical Methods in Fluids</i> , 1993, 16, 421-443.	1.6	26
93	MULTIGRID COMPUTATION FOR TURBULENT RECIRCULATING FLOWS IN COMPLEX GEOMETRIES. <i>Numerical Heat Transfer; Part A: Applications</i> , 1993, 23, 79-98.	2.1	14
94	Parametric Study on Reduction of SO <sub>2</sub> Emissions in a Coal-Fired Pulsating Combustor. <i>Combustion Science and Technology</i> , 1993, 90, 253-266.	2.3	0
95	Theoretical and Experimental Study on Two-Phase Structure of Planar Mixing Layer. <i>AIAA Journal</i> , 1993, 31, 68-74.	2.6	16
96	Experimental and theoretical study on hollow-cone spray. <i>Journal of Propulsion and Power</i> , 1993, 9, 28-34.	2.2	29
97	Effect of composition change on temperature measurements in a premixed flame by holographic interferometry. <i>Optical Engineering</i> , 1992, 31, 353.	1.0	16
98	Comparative numerical studies on Reynolds and Favre averagings of turbulent diffusion flame. <i>Journal of Propulsion and Power</i> , 1992, 8, 259-263.	2.2	3
99	NUMERICAL TREATMENT OF DIFFUSION COEFFICIENTS AT INTERFACES. <i>Numerical Heat Transfer; Part A: Applications</i> , 1992, 21, 363-376.	2.1	11
100	Application of laser holographic interferometry to temperature measurements in buoyant air jets. <i>Journal of Thermophysics and Heat Transfer</i> , 1992, 6, 377-379.	1.6	3
101	Numerical boundary conditions at the interface in a confined flow computation. <i>Computers and Fluids</i> , 1992, 21, 571-581.	2.5	0
102	A diffusion-type problem with variable diffusion coefficient in multi-layer slab. <i>International Communications in Heat and Mass Transfer</i> , 1992, 19, 841-849.	5.6	1
103	Analysis of finite laminar opposed-jets with and without rigid-body rotation. <i>International Journal of Heat and Mass Transfer</i> , 1992, 35, 945-956.	4.8	7
104	Analytical Solution for Heat Conduction in a Two-Material-Layer Slab With Linearly Temperature Dependent Conductivity. <i>Journal of Heat Transfer</i> , 1991, 113, 237-239.	2.1	14
105	Study on reduction of SO <sub>2</sub> and NO <sub>x</sub> emissions in a pulsating combustor burning petroleum coke. <i>Energy</i> , 1991, 16, 849-858.	8.8	8
106	A hybrid $k-\epsilon$ turbulence model of recirculating flow. <i>International Journal for Numerical Methods in Fluids</i> , 1991, 12, 369-382.	1.6	7
107	Analytical and numerical approaches for heat conduction in composite materials. <i>Mathematical and Computer Modelling</i> , 1990, 14, 899-904.	2.0	8
108	Sulfur Removal from Coal-Fired Rijke-Type Pulsating Combustor by Burning with Calcium Carbonate Particles. <i>The JSME International Journal, Series 2: Fluids Engineering, Heat Transfer, Power, Combustion/thermophysical Properties</i> , 1990, 33, 384-388.	0.1	0

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109	Combustion of pulverized coal using waste carbon dioxide and oxygen. Combustion and Flame, 1988, 72, 301-310.	5.2	59