

Jung-il Choi

List of Publications by Year in descending order

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92
papers

2,353
citations

236925

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docs citations

93
times ranked

1581
citing authors

#	ARTICLE	IF	CITATIONS
1	An immersed boundary method for complex incompressible flows. <i>Journal of Computational Physics</i> , 2007, 224, 757-784.	3.8	281
2	Drag Reduction by Spanwise Wall Oscillation in Wall-Bounded Turbulent Flows. <i>AIAA Journal</i> , 2002, 40, 842-850.	2.6	125
3	Numerical Simulations of Effects of Micro Vortex Generators Using Immersed-Boundary Methods. <i>AIAA Journal</i> , 2010, 48, 92-103.	2.6	97
4	Spatial organization of large- and very-large-scale motions in a turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2014, 749, 818-840.	3.4	90
5	Large-eddy simulation of human-induced contaminant transport in room compartments. <i>Indoor Air</i> , 2012, 22, 77-87.	4.3	89
6	Lagrangian statistics in turbulent channel flow. <i>Physics of Fluids</i> , 2004, 16, 779-793.	4.0	85
7	Large Eddy/Reynolds-Averaged Navier-Stokes Simulation of a Mach 5 Compression-Corner Interaction. <i>AIAA Journal</i> , 2008, 46, 977-991.	2.6	81
8	Mathematical Analysis of Particle Deposition in Human Lungs: An Improved Single Path Transport Model. <i>Inhalation Toxicology</i> , 2007, 19, 925-939.	1.6	76
9	Large eddy simulation and zonal modeling of human-induced contaminant transport. <i>Indoor Air</i> , 2008, 18, 233-249.	4.3	71
10	Evolution of Ultrafine Particle Size Distributions Following Indoor Episodic Releases: Relative Importance of Coagulation, Deposition and Ventilation. <i>Aerosol Science and Technology</i> , 2012, 46, 494-503.	3.1	70
11	Compressible Boundary-Layer Predictions at High Reynolds Number Using Hybrid LES/RANS Methods. <i>AIAA Journal</i> , 2009, 47, 2179-2193.	2.6	62
12	Forecasting state-of-health of lithium-ion batteries using variational long short-term memory with transfer learning. <i>Journal of Energy Storage</i> , 2021, 41, 102893.	8.1	54
13	Compressible-Flow Simulations Using a New Large-Eddy Simulation/Reynolds-Averaged Navier-Stokes Model. <i>AIAA Journal</i> , 2011, 49, 2194-2209.	2.6	53
14	Fast local image inpainting based on the Allen-Cahn model. , 2015, 37, 65-74.		51
15	A phase-field fluid modeling and computation with interfacial profile correction term. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 30, 84-100.	3.3	50
16	Simulation of Shock/Boundary-Layer Interactions with Bleed Using Immersed-Boundary Methods. <i>Journal of Propulsion and Power</i> , 2010, 26, 203-214.	2.2	47
17	Multi-component Cahn-Hilliard system with different boundary conditions in complex domains. <i>Journal of Computational Physics</i> , 2016, 323, 1-16.	3.8	45
18	Intermittent Nature of Acceleration in Near Wall Turbulence. <i>Physical Review Letters</i> , 2004, 92, 144502.	7.8	44

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19	Relationship between wall pressure fluctuations and streamwise vortices in a turbulent boundary layer. <i>Physics of Fluids</i> , 2002, 14, 898-901.	4.0	38
20	Multizone modeling of strategies to reduce the spread of airborne infectious agents in healthcare facilities. <i>Building and Environment</i> , 2013, 60, 105-115.	6.9	38
21	Direct Numerical Simulation of Turbulent Flow in a Square Duct: Analysis of Secondary Flows. <i>Journal of Engineering Mechanics - ASCE</i> , 2007, 133, 213-221.	2.9	37
22	Human-Induced Particle Re-Suspension in a Room. <i>Aerosol Science and Technology</i> , 2010, 44, 216-229.	3.1	35
23	Multiple parameter identification using genetic algorithm in vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2020, 450, 227684.	7.8	33
24	Size-Resolved Source Emission Rates of Indoor Ultrafine Particles Considering Coagulation. <i>Environmental Science & Technology</i> , 2016, 50, 10031-10038.	10.0	30
25	Activity gradient carbon felt electrodes for vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2018, 408, 128-135.	7.8	30
26	Large-eddy simulation of turbulent flow and dispersion over a complex urban street canyon. <i>Environmental Fluid Mechanics</i> , 2014, 14, 1381-1403.	1.6	28
27	Fully decoupled monolithic projection method for natural convection problems. <i>Journal of Computational Physics</i> , 2017, 334, 582-606.	3.8	25
28	Dynamic Pore Modulation of Stretchable Electrospun Nanofiber Filter for Adaptive Machine Learned Respiratory Protection. <i>ACS Nano</i> , 2021, 15, 15730-15740.	14.6	25
29	Impedance-based capacity estimation for lithium-ion batteries using generative adversarial network. <i>Applied Energy</i> , 2022, 308, 118317.	10.1	25
30	Simulations of High-Speed Internal Flows Using LES/RANS Models. , 2009, , .		24
31	RANS and Hybrid LES/RANS Simulation of the Effects of Micro Vortex Generators Using Immersed Boundary Methods. , 2008, , .		23
32	Numerical Simulation of the Effects of Mesoflaps in Controlling Shock/Boundary-Layer Interactions. <i>Journal of Propulsion and Power</i> , 2012, 28, 955-970.	2.2	23
33	Effect of wind and buoyancy interaction on single-sided ventilation in a building. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017, 171, 380-389.	3.9	21
34	Global sensitivity analysis for multivariate outputs using polynomial chaos-based surrogate models. <i>Applied Mathematical Modelling</i> , 2020, 82, 867-887.	4.2	20
35	A decoupled monolithic projection method for natural convection problems. <i>Journal of Computational Physics</i> , 2016, 314, 160-166.	3.8	19
36	A pre-conditioned implicit direct forcing based immersed boundary method for incompressible viscous flows. <i>Journal of Computational Physics</i> , 2016, 314, 774-799.	3.8	19

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37	Lock-in regions of laminar flows over a streamwise oscillating circular cylinder. <i>Journal of Fluid Mechanics</i> , 2019, 858, 315-351.	3.4	19
38	Efficient monolithic projection method with staggered time discretization for natural convection problems. <i>International Journal of Heat and Mass Transfer</i> , 2019, 144, 118677.	4.8	18
39	Analysis of velocity-components decoupled projection method for the incompressible Navier–Stokes equations. <i>Computers and Mathematics With Applications</i> , 2016, 71, 1722-1743.	2.7	17
40	Efficient monolithic projection method for time-dependent conjugate heat transfer problems. <i>Journal of Computational Physics</i> , 2018, 369, 191-208.	3.8	17
41	Multi-Wall Recycling / Rescaling Method for Inflow Turbulence Generation. , 2010, , .		16
42	PaScaL_TDMA: A library of parallel and scalable solvers for massive tridiagonal systems. <i>Computer Physics Communications</i> , 2021, 260, 107722.	7.5	16
43	Numerical Analysis on Water Transport in Alkaline Anion Exchange Membrane Fuel Cells. <i>Electrochemistry</i> , 2015, 83, 80-83.	1.4	15
44	Transition flow modes in Czochralski convection. <i>Journal of Crystal Growth</i> , 1997, 180, 305-314.	1.5	13
45	Suboptimal control for drag reduction in turbulent pipe flow. <i>Fluid Dynamics Research</i> , 2002, 30, 217-231.	1.3	13
46	Large Eddy Simulation of Particle Re-suspension During a Footstep. <i>Aerosol Science and Technology</i> , 2012, 46, 767-780.	3.1	13
47	Efficient monolithic projection-based method for chemotaxis-driven bioconvection problems. <i>Computers and Mathematics With Applications</i> , 2021, 84, 166-184.	2.7	13
48	Simulation of Shock / Boundary Layer Interactions Using Improved LES/RANS Models. , 2010, , .		11
49	Extended synthetic eddy method to generate inflow data for turbulent thermal boundary layer. <i>International Journal of Heat and Mass Transfer</i> , 2019, 134, 1261-1267.	4.8	11
50	Monolithic projection-based method with staggered time discretization for solving non-Oberbeck–Boussinesq natural convection flows. <i>Journal of Computational Physics</i> , 2022, 463, 111238.	3.8	11
51	Suppression of temperature oscillation in Czochralski convection by superimposing rotating flows. <i>International Journal of Heat and Mass Transfer</i> , 1997, 40, 1667-1675.	4.8	10
52	A simple and efficient outflow boundary condition for the incompressible Navier–Stokes equations. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2017, 11, 69-85.	3.1	10
53	Non-intrusive framework of reduced-order modeling based on proper orthogonal decomposition and polynomial chaos expansion. <i>Journal of Computational and Applied Mathematics</i> , 2021, 390, 113372.	2.0	10
54	Enhanced Single-Sided Ventilation with Overhang in Buildings. <i>Energies</i> , 2016, 9, 122.	3.1	9

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55	Binary genetic algorithm for optimal jointpoint detection: Application to cancer trend analysis. <i>Statistics in Medicine</i> , 2021, 40, 799-822.	1.6	9
56	Assessment of suboptimal control for drag reduction in turbulent channel flow. <i>Journal of Turbulence</i> , 2002, 3, N29.	1.4	8
57	Hybrid LES/RANS Simulation of a Mach 5 Compression-Corner Interaction. , 2008, , .		8
58	A Reconstruction Method of Blood Flow Velocity in Left Ventricle Using Color Flow Ultrasound. <i>Computational and Mathematical Methods in Medicine</i> , 2015, 2015, 1-15.	1.3	8
59	Uncertainty quantification of upstream wind effects on single-sided ventilation in a building using generalized polynomial chaos method. <i>Building and Environment</i> , 2017, 125, 153-167.	6.9	8
60	MPI Parallel Implementation for Pseudo-Spectral Simulations for Turbulent Channel Flow. <i>International Journal of Computational Fluid Dynamics</i> , 2020, 34, 569-582.	1.2	8
61	Non-intrusive reduced-order modeling for uncertainty quantification of space-time-dependent parameterized problems. <i>Computers and Mathematics With Applications</i> , 2021, 87, 50-64.	2.7	8
62	Mean thermal energy balance analysis in differentially heated vertical channel flows. <i>Physics of Fluids</i> , 2021, 33, .	4.0	8
63	Compressible Boundary Layer Predictions at High Reynolds Number using Hybrid LES/RANS Methods. , 2008, , .		7
64	Interparticle collision mechanism in turbulence. <i>Physical Review E</i> , 2016, 93, 013112.	2.1	6
65	Parameter identification and identifiability analysis of lithium-ion batteries. <i>Energy Science and Engineering</i> , 2022, 10, 488-506.	4.0	6
66	Effect of surface conditions on blast wave propagation. <i>Journal of Mechanical Science and Technology</i> , 2016, 30, 3907-3915.	1.5	5
67	Efficient exact solution procedure for quasi-one-dimensional nozzle flows with stiffened-gas equation of state. <i>International Journal of Heat and Mass Transfer</i> , 2019, 137, 523-533.	4.8	5
68	Simulations of Shock / Boundary Layer Interactions with Bleed using Immersed Boundary Methods. , 2009, , .		4
69	Physically Based Probabilistic Analysis of Sediment Deposition in Open Channel Flow. <i>Journal of Hydraulic Engineering</i> , 2017, 143, .	1.5	4
70	An immersed boundary formulation incorporating a two-layer wall model approach for RANS simulations with complex geometry. <i>Computers and Fluids</i> , 2020, 205, 104551.	2.5	4
71	An Immersed Boundary Method for General Flow Applications. , 2010, , .		3
72	Simulation of a Mach 3 24-Degree Compression-Ramp Interaction using LES/RANS Models. , 2011, , .		3

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73	Exponentially Stagnation Point Flow of Non-Newtonian Nanofluid over an Exponentially Stretching Surface. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, .	1.0	3
74	Pre-design model for redox flow battery design. Journal of Mechanical Science and Technology, 2018, 32, 1025-1032.	1.5	3
75	Contribution of Reynolds shear stress to near-wall turbulence in Rayleigh-Bénard convection. International Journal of Heat and Mass Transfer, 2021, 181, 121873.	4.8	3
76	NUMERICAL SIMULATION OF INITIAL FIREBALL AFTER NUCLEAR EXPLOSION. Journal of Computational Fluids Engineering, 2014, 19, 45-51.	0.0	3
77	Immersed-Boundary Methods for Simulating Human Motion Events. Computational Methods in Engineering & the Sciences, 2020, , 395-419.	0.3	3
78	Identification and Control of Taylor-Görtler Vortices in Turbulent Curved Channel Flow. AIAA Journal, 2003, 41, 2387-2393.	2.6	2
79	Inter-particle collision in particle-laden isotropic turbulence. Journal of Physics: Conference Series, 2011, 318, 052012.	0.4	2
80	An electrical impedance monitoring method of water-lubricated oil transportation. Flow Measurement and Instrumentation, 2015, 46, 327-333.	2.0	2
81	A reconstruction method of intra-ventricular blood flow using color flow ultrasound: a simulation study. Proceedings of SPIE, 2015, , .	0.8	2
82	Inverse Problem for Color Doppler Ultrasound-Assisted Intracardiac Blood Flow Imaging. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-10.	1.3	2
83	Analysis of localized damping effects in channel flows with a periodic rough boundary. Applicable Analysis, 2018, 97, 902-918.	1.3	2
84	Quantification of measurement error effects on conductivity reconstruction in electrical impedance tomography. Inverse Problems in Science and Engineering, 2020, 28, 1669-1693.	1.2	2
85	Numerical Simulation of the Effects of Mesoflaps in Controlling Shock / Boundary Layer Interactions. , 2010, , .		1
86	Two dimensional radial gas flows in atmospheric pressure plasma-enhanced chemical vapor deposition. AIP Advances, 2017, 7, 125310.	1.3	1
87	Analysis of localized damping effects in channel flows with arbitrary rough boundary. Applicable Analysis, 2019, 98, 2359-2377.	1.3	1
88	Numerical Simulation of Underwater Burst Events Using Sharp Interface Capturing Methods. , 2019, , .		1
89	Analysis of convective heat transfer in channel flow with arbitrary rough surface. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2019, 99, e201700363.	1.6	1
90	Drag, lift, and torque coefficients for various geometrical configurations of elliptic cylinder under Stokes to laminar flow regimes. AIP Advances, 2022, 12, .	1.3	1

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91	Short note on conditional collapse of self-gravitating system with positive total energy. Physica A: Statistical Mechanics and Its Applications, 2018, 507, 205-209.	2.6	0
92	AN IMMERSED BOUNDARY METHOD FOR LOW REYNOLDS NUMBER FLOWS. Journal of Computational Fluids Engineering, 2013, 18, 34-41.	0.0	0