Wei Xiao

List of Publications by Year
in descending order

26 papers	878 citations	516710 16 h-index	677142 22 g-index
26 all docs	26 docs citations	26 times ranked	597 citing authors

#	Article	IF	Citations
1	Combined multi-direct forcing and immersed boundary method for simulating flows with moving particles. International Journal of Multiphase Flow, 2008, 34, 283-302.	3.4	221
2	Full-scale solutions to particle-laden flows: Multidirect forcing and immersed boundary method. Physical Review E, 2007, 76, 066709.	2.1	108
3	Immersed boundary method for the simulation of flows with heat transfer. International Journal of Heat and Mass Transfer, 2009, 52, 4510-4518.	4.8	86
4	Particleâ€resolved direct numerical simulation of gasâ€“solid dynamics in experimental fluidized beds. AIChE Journal, 2016, 62, 1917-1932.	3.6	74
5	A ghost-cell immersed boundary method for simulations of heat transfer in compressible flows under different boundary conditions. International Journal of Heat and Mass Transfer, 2016, 92, 708-717.	4.8	54
6	A modified immersed boundary method for simulations of fluidâ€“particle interactions. Computer Methods in Applied Mechanics and Engineering, 2007, 197, 36-46.	6.6	41
7	A ghost-cell based high-order immersed boundary method for inter-phase heat transfer simulation. International Journal of Heat and Mass Transfer, 2014, 75, 302-312.	4.8	40
8	A ghost-cell immersed boundary method for the simulations of heat transfer in compressible flows under different boundary conditions Part-II: Complex geometries. International Journal of Heat and Mass Transfer, 2017, 104, 98-111.	4.8	29
9	Analysis and development of novel data-driven drag models based on direct numerical simulations of fluidized beds. Chemical Engineering Science, 2021, 231, 116245.	3.8	27
10	An improved direct-forcing immersed boundary method with inward retraction of Lagrangian points for simulation of particle-laden flows. Journal of Computational Physics, 2019, 376, 210-227.	3.8	25
11	Drag force for a burning particle. Combustion and Flame, 2020, 217, 188-199.	5.2	22
12	Simulating heat transfer from moving rigid bodies using high-order ghost-cell based immersed-boundary method. International Journal of Heat and Mass Transfer, 2015, 89, 856-865.	4.8	21
13	Fully-resolved DNS study of rotation behaviors of one and two particles settling near a vertical wall. Powder Technology, 2013, 245, 115-125.	4.2	19
14	Fully resolved simulations of single char particle combustion using a ghostâ€cell immersed boundary method. AIChE Journal, 2018, 64, 2851-2863.	3.6	19
15	Eulerianâ€“Lagrangian direct numerical simulation of preferential accumulation of inertial particles in a compressible turbulent boundary layer. Journal of Fluid Mechanics, 2020, 903, .	3.4	18
16	Direct numerical simulation of a three-dimensional spatially evolving compressible mixing layer laden with particles. II. Turbulence anisotropy and growth rate. Physics of Fluids, 2019, 31, 083303.	4.0	17
17	Immersed boundary method for multiphase transport phenomena. Reviews in Chemical Engineering, 2022, 38, 363-405.	4.4	14
18	Interaction of a planar reacting shock wave with an isotropic turbulent vorticity field. Physical Review E, 2017, 96, 053104.	2.1	13

#	Article	IF	Citations
19	Response of force behaviors of a spherical particle to an oscillating flow. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3046-3052.	2.1	10
20	Fully resolved simulation of a shockwave interacting with randomly clustered particles via a ghost-cell immersed boundary method. Physics of Fluids, 2020, 32, 066105.	4.0	9
21	Fully resolved numerical simulation of interphase heat transfer in gasâ€“solid turbulent flow. International Journal of Heat and Mass Transfer, 2017, 112, 45-60.	4.8	8
22	Visualization of vortex shedding and particle dispersion in two-phase plate wake. Journal of Visualization, 2005, 8, 3-3.	1.8	3
23	Flow visualization of the turbulent jet by Direct numerical simulation. Journal of Visualization, 2004, 7, 110-110.	1.8	0
24	Coherent structures of the particle-laden turbulent round jet at different reynolds number. Journal of Visualization, 2004, 7, 177-177.	1.8	0
25	DNS of the turbulence modulation by dispersed particles in compressible spatially developing two-phase jets. Progress in Natural Science: Materials International, 2004, 14, 817-821.	4.4	0
26	Large eddy simulation of the gas-particle turbulent wake flow. Journal of Zhejiang University Science B, 2004, 5, 106-10.	0.4	0