Kosuke Hayashi

List of Publications by Citations

103 papers	1,075 citations	20 h-index	28 g-index
119 ext. papers	1,339 ext. citations	2 avg, IF	4.79 L-index

#	Paper	IF	Citations
103	Shapes of ellipsoidal bubbles in infinite stagnant liquids. *International Journal of Multiphase Flow*, **2016**, 79, 23-30	3.6	66
102	Effects of column diameter and liquid height on gas holdup in air-water bubble columns. *Experimental Thermal and Fluid Science*, **2017**, 82, 359-366	3	44
101	Effects of surfactant on terminal velocity of a Taylor bubble in a vertical pipe. *International Journal of Multiphase Flow*, **2012**, 39, 78-87	3.6	39
100	Effects of swirler shape on swirling annular flow in a gas–liquid separator. *Nuclear Engineering and Design*, **2012**, 249, 63-70	1.8	39
99	Terminal velocities of clean and fully-contaminated drops in vertical pipes. *International Journal of Multiphase Flow*, **2013**, 49, 8-23	3.6	38
98	Effects of hydrophilic particles on bubbly flow in slurry bubble column. *International Journal of Multiphase Flow*, **2014**, 58, 154-167	3.6	38
97	Terminal velocity of a Taylor drop in a vertical pipe. *International Journal of Multiphase Flow*, **2011**, 37, 241-251	3.6	38
96	Effects of shape oscillation on mass transfer from a Taylor bubble. *International Journal of Multiphase Flow*, **2014**, 58, 236-245	3.6	34
95	Lift force acting on single bubbles in linear shear flows. *International Journal of Multiphase Flow*, **2017**, 96, 113-122	3.6	31
94	Effects of liquid height on gas holdup in air–water bubble column. *Experimental Thermal and Fluid Science*, **2016**, 72, 67-74	3	30
93	Implicit-correction-based immersed boundary-lattice Boltzmann method with two relaxation times. *Physical Review E*, **2014**, 89, 023307	2.4	30
92	Permeation of concentrated oil-in-water emulsions through a membrane pore: numerical simulation using a coupled level set and the volume-of-fluid method. *Soft Matter*, **2014**, 10, 7985-92	3.6	30
91	Bubble shape under the action of electric forces. *Experimental Thermal and Fluid Science*, **2013**, 49, 160-168	3	30
90	Void distribution and bubble motion in bubbly flows in a 4×4 rod bundle. Part I: Experiments. *Journal of Nuclear Science and Technology*, **2014**, 51, 220-230	1	27
89	Effects of Particle Diameter on Bubble Coalescence in a Slurry Bubble Column. *Journal of Chemical Engineering of Japan*, **2015**, 48, 181-189	0.8	26
88	Interface Tracking Simulation of Mass Transfer from a Dissolving Bubble. *Journal of Computational Multiphase Flows*, **2011**, 3, 247-261		26
87	Shapes of single bubbles in infinite stagnant liquids contaminated with surfactant. *Experimental Thermal and Fluid Science*, **2018**, 96, 460-469	3	25

86	Study on two-phase swirling flows in a gas–liquid separator with three pick-off rings. *Nuclear Engineering and Design*, **2016**, 308, 205-213	1.8	24
85	Mass transfer from single carbon dioxide bubbles in contaminated water in a vertical pipe. *International Journal of Heat and Mass Transfer*, **2015**, 83, 652-658	4.9	22
84	MODELING AND HYBRID SIMULATION OF BUBBLY FLOW. *Multiphase Science and Technology*, **2006**, 18, 73-110	1	22
83	Distributions of void fraction and liquid velocity in air–water bubble column. *International Journal of Multiphase Flow*, **2014**, 67, 111-121	3.6	19
82	BUBBLE TRACKING SIMULATION OF BUBBLE-INDUCED PSEUDOTURBULENCE. *Multiphase Science and Technology*, **2012**, 24, 197-222	1	19
81	Interfacial and wall friction factors of swirling annular flow in a vertical pipe. *Nuclear Engineering and Design*, **2018**, 330, 97-105	1.8	18
80	Effects of Surfactants on Mass Transfer from Single Carbon Dioxide Bubbles in Vertical Pipes. *Chemical Engineering and Technology*, **2015**, 38, 1955-1964	2	16
79	Effects of fluid properties on CCFL characteristics at a vertical pipe lower end. *Journal of Nuclear Science and Technology*, **2015**, 52, 887-896	1	14
78	Countercurrent Flow Limitation at the Junction between the Surge Line and the Pressurizer of a PWR. *Science and Technology of Nuclear Installations*, **2012**, 2012, 1-10	0.6	14
77	Experimental evaluation of Marangoni stress and surfactant concentration at interface of contaminated single spherical drop using spatiotemporal filter velocimetry. *International Journal of Multiphase Flow*, **2017**, 97, 157-167	3.6	13
76	Condensation experiments for counter-current flow limitation in an inverted U-tube. *Journal of Nuclear Science and Technology*, **2016**, 53, 486-495	1	13
75	Effects of inlet condition on flow structure of bubbly flow in a rectangular column. *Chemical Engineering Science*, **2013**, 104, 166-176	4.4	12
74	A drag correlation of fluid particles rising through stagnant liquids in vertical pipes at intermediate Reynolds numbers. *Chemical Engineering Science*, **2009**, 64, 3019-3028	4.4	12
73	Effects of surfactant on lift coefficients of bubbles in linear shear flows. *International Journal of Multiphase Flow*, **2018**, 99, 86-93	3.6	11
72	Mass transfer from single carbon-dioxide bubbles in electrolyte aqueous solutions in vertical pipes. *International Journal of Heat and Mass Transfer*, **2017**, 115, 663-671	4.9	11
71	Immersed Boundary-Lattice Boltzmann Method Using Two Relaxation Times. *Journal of Computational Multiphase Flows*, **2012**, 4, 193-209		11
70	DIMENSIONAL ANALYSIS OF TERMINAL VELOCITY OF A TAYLOR BUBBLE IN A VERTICAL PIPE. *Multiphase Science and Technology*, **2010**, 22, 197-210	1	11
69	Mass transfer from single carbon dioxide bubbles in alcohol aqueous solutions in vertical pipes. *International Journal of Heat and Mass Transfer*, **2017**, 108, 1991-2001	4.9	10

68	Rise velocities of single bubbles in a narrow channel between parallel flat plates. *International Journal of Multiphase Flow*, **2019**, 111, 285-293	3.6	10
67	Improvement of separator performance with modified pick-off ring and swirler. *Nuclear Engineering and Design*, **2017**, 322, 360-367	1.8	9
66	Evaluation of adsorption of surfactant at a moving interface of a single spherical drop. *Experimental Thermal and Fluid Science*, **2018**, 96, 397-405	3	8
65	Experimental study on interfacial and wall friction factors under counter-current flow limitation in vertical pipes with sharp-edged lower ends. *Nuclear Engineering and Design*, **2019**, 353, 110223	1.8	8
64	Immersed Boundary-Finite Difference Lattice Boltzmann Method for Liquid-Solid Two-Phase Flows. *Journal of Fluid Science and Technology*, **2011**, 6, 1051-1064	0.4	8
63	Counter-Current Flow Limitation inside Vertical Pipes. *Japanese Journal of Multiphase Flow*, **2016**, 30, 392-401	0.3	8
62	Analytical and numerical studies of the boundary slip in the immersed boundary-thermal lattice Boltzmann method. *International Journal for Numerical Methods in Fluids*, **2018**, 86, 454-490	1.9	7
61	Effects of Particle Concentration and Slurry Height on Gas Holdup in a Slurry Bubble Column. *Journal of Chemical Engineering of Japan*, **2016**, 49, 824-830	0.8	7
60	Mixing of thermally stratified water layer by a free rising wobbling air bubble. *Chemical Engineering Science*, **2012**, 72, 155-171	4.4	7
59	Clear Detection of Thin-Walled Regions in Unruptured Cerebral Aneurysms by Using Computational Fluid Dynamics. *World Neurosurgery*, **2019**, 121, e287-e295	2.1	7
58	Effects of Numerical Treatment of Viscous and Surface Tension Forces on Predicted Motion of Interface. *Journal of Computational Multiphase Flows*, **2014**, 6, 111-126		6
57	Void distribution and bubble motion in bubbly flows in a 4×4 rod bundle. Part II: numerical simulation. *Journal of Nuclear Science and Technology*, **2014**, 51, 580-589	1	6
56	INTERFACE TRACKING SIMULATION OF BUBBLES AND DROPS IN COMPLEX GEOMETRIES. *Multiphase Science and Technology*, **2007**, 19, 121-140	1	6
55	Mass transfer from single carbon-dioxide bubbles in surfactant-electrolyte mixed aqueous solutions in vertical pipes. *International Journal of Multiphase Flow*, **2020**, 124, 103207	3.6	6
54	Pressure drops of air-water two-phase flows in horizontal U-bends. *International Journal of Multiphase Flow*, **2020**, 131, 103403	3.6	6
53	Effects of liquid viscosity on flows inside and outside a bubble diffuser pipe. *Experimental Thermal and Fluid Science*, **2015**, 66, 197-205	3	5
52	A Volume Tracking Method for Multi-Phase Flow Simulation (Improvement of an Interface Reconstruction Method). *880-02 Nihon Kikai Gakkai Ronbunsh□Transactions of the Japan Society of Mechanical Engineers Series B B-hen*, **2004**, 70, 2538-2544		5
51	Detection of Hemodynamic Characteristics Before Growth in Growing Cerebral Aneurysms by Analyzing Time-of-Flight Magnetic Resonance Angiography Images Alone: Preliminary Results. *World Neurosurgery*, **2019**, 122, e1439-e1448	2.1	5

50	Numerical investigation of bubble shape and flow field of gas–liquid slug flow in circular microchannels. *International Journal of Heat and Fluid Flow*, **2018**, 74, 28-35	2.4	5
49	Effects of azimuthal angle of aeration hole on flows inside and outside an air diffuser pipe. *Experimental Thermal and Fluid Science*, **2017**, 89, 90-97	3	4
48	Immersed Boundary-Finite Difference Lattice Boltzmann Method Using Two Relaxation Times. *Journal of Fluid Science and Technology*, **2013**, 8, 262-276	0.4	4
47	Application of Chahn-Hilliard Equation to the Evaluation of Surface Tension Force. *Japanese Journal of Multiphase Flow*, **2006**, 20, 244-251	0.3	4
46	Effects of Fluid Properties on Countercurrent Flow Limitation in Vertical Pipes. *Japanese Journal of Multiphase Flow*, **2017**, 31, 152-161	0.3	4
45	Numerical simulations of flows in cerebral aneurysms using the lattice Boltzmann method with single- and multiple-relaxation time collision models. *Computers and Mathematics With Applications*, **2019**, 78, 2746-2760	2.7	3
44	Combined effects of alcohol and electrolyte on mass transfer from single carbon-dioxide bubbles in vertical pipes. *International Journal of Heat and Mass Transfer*, **2019**, 136, 521-530	4.9	3
43	Interfacial Friction Factor for Counter-Current Gas-Liquid Flows in Vertical Pipes. *Japanese Journal of Multiphase Flow*, **2017**, 31, 37-46	0.3	3
42	Numerical Simulation of Flows about a Stationary and a Free-Falling Cylinder Using Immersed Boundary-Finite Difference Lattice Boltzmann Method. *Journal of Computational Multiphase Flows*, **2013**, 5, 27-41		3
41	Interface Tracking Simulation of Mass Transfer From a Dissolving Bubble **2011**,		3
40	Mass Transfer From a Bubble in a Vertical Pipe **2011**,		3
39	Study on Flows inside and outside an Air Diffuser for Membrane Bioreactor. *Journal of Fluid Science and Technology*, **2012**, 7, 78-88	0.4	3
38	Numerical verification of a simplified model for vapor bubble lift-off from a hydrophilic heated flat-wall. *Nuclear Engineering and Design*, **2010**, 240, 3942-3948	1.8	3
37	Lift Coefficients of Clean Ellipsoidal Bubbles in Linear Shear Flows. *International Journal of Multiphase Flow*, **2020**, 129, 103350	3.6	3
36	DRAG CORRELATIONS OF ELLIPSOIDAL BUBBLES IN CLEAN AND FULLY CONTAMINATED SYSTEMS. *Multiphase Science and Technology*, **2019**, 31, 215-234	1	3
35	Effects of fine particles on terminal velocities of single bubbles in a narrow channel between parallel flat plates. *International Journal of Multiphase Flow*, **2020**, 127, 103270	3.6	2
34	Pressure and shear stress analysis in a normal triangular tube bundle based on experimental flow velocity field. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, **2020**, 42, 1	2	2
33	Semi-empirical correlation for counter-current flow limitation at the upper or lower end of sharp-edged vertical pipes. *Nuclear Engineering and Design*, **2018**, 328, 182-187	1.8	2

32	Numerical Simulation of Poly-Dispersed Bubbly Flows in Bubble Columns Using a Multi-Fluid Model(Fluids Engineering). *880-02 Nihon Kikai Gakkai Ronbunsh Transactions of the Japan Society of Mechanical Engineers Series B B-hen*, **2009**, 75, 2182-2189		2
31	Interface Tracking Simulation of Drops Rising through Liquids in a Vertical Pipe Using Three Coordinate Systems. *Journal of Computational Multiphase Flows*, **2010**, 2, 47-57		2
30	Volume Tracking Simulation of Bubble Motion with Low Spatial Resolution. *Journal of Fluid Science and Technology*, **2007**, 2, 490-501	0.4	2
29	BUBBLE TRACKING SIMULATIONS USING SIMPLE MODELS FOR FLUCTUATING BUBBLE MOTION. *Multiphase Science and Technology*, **2020**, 32, 221-236	1	2
28	Evaluation of Volume Tracking Algorithms for Gas-Liquid Two-Phase Flows **2003**,		2
27	Effects of fluid properties on interfacial and wall friction factors under counter-current flow limitation in a vertical pipe with sharp-edged lower end. *Nuclear Engineering and Design*, **2021**, 373, 111020	1.8	2
26	Experiments on Removal of Hydrophilic Fine Particles in Bubbly Flow. *ISIJ International*, **2019**, 59, 209-215	1.7	2
25	Newly Identified Hemodynamic Parameter to Predict Thin-Walled Regions of Unruptured Cerebral Aneurysms Using Computational Fluid Dynamics Analysis. *World Neurosurgery*, **2021**, 152, e377-e386	2.1	2
24	Scaling of Lift Reversal of Deformed Bubbles in Air-Water Systems. *International Journal of Multiphase Flow*, **2021**, 142, 103653	3.6	2
23	Effects of chemical absorption on mass transfer from single carbon dioxide bubbles in aqueous sodium hydroxide solution in a vertical pipe. *Chemical Engineering Science*, **2021**, 245, 116852	4.4	2
22	On CCFL at a PWR Hot-Leg Pipe Geometry and Comparison Between Results in COLLIDER 1/4th- and Kobe 1/15th-Scaled Facilities. *Nuclear Science and Engineering*, **2019**, 193, 147-159	1.2	1
21	Assessment of Numerical Treatments in Interface Capturing Simulations for Surface-Tension-Driven Interface Motion. *Journal of Computational Multiphase Flows*, **2015**, 7, 15-32		1
20	Numerical Simulation of Bubble Motion about a Grid Spacer in a Rod Bundle. *Journal of Power and Energy Systems*, **2009**, 3, 393-404		1
19	A Volume Tracking Method Based on Advanced Subgrid Counting Algorithm **2005**, 265		1
18	Single Contaminated Drops Falling through Stagnant Liquid at Low Reynolds Numbers. *Fluids*, **2022**, 7, 55	1.6	1
17	Flow Characteristics in a 3 Rod Bundle under Flooding Conditions. *Japanese Journal of Multiphase Flow*, **2020**, 35, 159-167	0.3	1
16	An Interface-Capturing Method for Free-Surface Flows in a Flow Channel Consisting of Solid Obstacles. *Journal of Chemical Engineering of Japan*, **2014**, 47, 230-240	0.8	1
15	Flow Characteristics of Air-Water Two-Phase Flows in a Serpentine Tube. *Japanese Journal of Multiphase Flow*, **2021**, 35, 85-92	0.3	1

14	Flow characteristics in vertical circular pipes with the square top end under flooding conditions. *Nuclear Engineering and Design*, **2021**, 371, 110951	1.8	1
13	Void Fraction and Interfacial Friction in Vertical Circular Pipes with the Square Top End under Flooding Conditions. *Nuclear Technology*,1-17	1.4	0
12	An Evolving Numerical Method for Designing Slurry Bubble Column Reactors. *Kagaku Kogaku Ronbunshu*, **2010**, 36, 17-24	0.4	0
11	Characterization of the Velocity Field External to a Tube Bundle Using Spatial Filter Velocimetry Based on Variable Meshing Scheme. *Flow, Turbulence and Combustion*, **2020**, 105, 1277-1301	2.5	
10	OS21-1-2 Mass transfer from a dissolving carbon dioxide bubble in glycerol-water solution. *The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics*, **2011**, 2011.10, _OS21-1-2-	0	
9	NUMERICAL SIMULATIONS OF FLOWS IN CEREBRAL ANEURYSMS USING THE LATTICE BOLTZMANN METHOD. *The Proceedings of Conference of Kansai Branch*, **2020**, 2020.95, 08_807	0	
8	Effects of Azimuthal Angle of Aeration Hole and Liquid Viscosity on Flows Inside and Outside an Air Diffuser Pipe. *Kagaku Kogaku Ronbunshu*, **2018**, 44, 59-66	0.4	
7	501 Effects of Azimuthal Angle of Aeration Hole on Flows inside and outside an Air Diffuser Pipe. *The Proceedings of Conference of Kansai Branch*, **2016**, 2016.91, 129-132	0	
6	OS21-1-3 Assessment of turbulence models for bubbly flow in a bubble column. *The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics*, **2011**, 2011.10, _OS21-1-3-	0	
5	Spatial Evolution of CO 2 -Contaminated Water Bubble Flows in a Vertical Pipe. *Chemie-Ingenieur-Technik*, **2021**, 93, 247-259	0.8	
4	Interface Tracking Methods **2018**, 27-72		
3	Numerical Simulations of Flows in a Cerebral Aneurysm Using the Lattice Boltzmann Method with the Half-Way and Interpolated Bounce-Back Schemes. *Fluids*, **2021**, 6, 338	1.6	
2	A phase field-finite difference lattice Boltzmann method for modeling dendritic growth solidification in the presence of melt convection. *Computers and Mathematics With Applications*, **2022**, 114, 180-187	2.7	
1	Fragmentation of drops falling through a miscible liquid with and without drop□drop interactions. *International Journal of Multiphase Flow*, **2022**, 153, 104134	3.6	