Chang Shu

List of Publications by Citations

366 papers	13,129 citations	56 h-index	99 g-index
383 ext. papers	14,848 ext. citations	3.1 avg, IF	6.89 L-index

#	Paper	IF	Citations
366	Application of generalized differential quadrature to solve two-dimensional incompressible Navier-Stokes equations. *International Journal for Numerical Methods in Fluids*, **1992**, 15, 791-798	1.9	663
365	Differential Quadrature and Its Application in Engineering **2000**,		505
364	Diffuse interface model for incompressible two-phase flows with large density ratios. *Journal of Computational Physics*, **2007**, 226, 2078-2095	4.1	409
363	A lattice Boltzmann model for multiphase flows with large density ratio. *Journal of Computational Physics*, **2006**, 218, 353-371	4.1	358
362	Local radial basis function-based differential quadrature method and its application to solve two-dimensional incompressible Navier-Stokes equations. *Computer Methods in Applied Mechanics and Engineering*, **2003**, 192, 941-954	5.7	341
361	Implicit velocity correction-based immersed boundary-lattice Boltzmann method and its applications. *Journal of Computational Physics*, **2009**, 228, 1963-1979	4.1	315
360	Fluid flow and heat transfer in wavy microchannels. *International Journal of Heat and Mass Transfer*, **2010**, 53, 2760-2772	4.9	315
359	Lattice Boltzmann Method and Its Applications in Engineering. *Advances in Computational Fluid Dynamics*, **2013**,	4	310
358	A momentum exchange-based immersed boundary-lattice Boltzmann method for simulating incompressible viscous flows. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2006**, 354, 173-182	2.3	274
357	Simplified thermal lattice Boltzmann model for incompressible thermal flows. *Physical Review E*, **2003**, 68, 026701	2.4	259
356	Application of lattice Boltzmann method to simulate microchannel flows. *Physics of Fluids*, **2002**, 14, 2299	4.4	239
355	Chaotic micromixers using two-layer crossing channels to exhibit fast mixing at low Reynolds numbers. *Lab on A Chip*, **2005**, 5, 748-55	7.2	186
354	Combustion in micro-cylindrical combustors with and without a backward facing step. *Applied Thermal Engineering*, **2002**, 22, 1777-1787	5.8	168
353	A novel immersed boundary velocity correction–lattice Boltzmann method and its application to simulate flow past a circular cylinder. *Journal of Computational Physics*, **2007**, 226, 1607-1622	4.1	150
352	Implementation of clamped and simply supported boundary conditions in the GDQ free vibration analysis of beams and plates. *International Journal of Solids and Structures*, **1997**, 34, 819-835	3.1	148
351	Multiphase lattice Boltzmann flux solver for incompressible multiphase flows with large density ratio. *Journal of Computational Physics*, **2015**, 280, 404-423	4.1	133
350	FREE VIBRATION ANALYSIS OF COMPOSITE LAMINATED CONICAL SHELLS BY GENERALIZED DIFFERENTIAL QUADRATURE. *Journal of Sound and Vibration*, **1996**, 194, 587-604	3.9	128

349	Efficient computation of natural convection in a concentric annulus between an outer square cylinder and an inner circular cylinder. *International Journal for Numerical Methods in Fluids*, **2002**, 38, 429-445	1.9	120
348	An SPH model for multiphase flows with complex interfaces and large density differences. *Journal of Computational Physics*, **2015**, 283, 169-188	4.1	117
347	Analysis of Cylindrical Shells Using Generalized Differential Quadrature. *Shock and Vibration*, **1997**, 4, 193-198	1.1	117
346	A 3D incompressible thermal lattice Boltzmann model and its application to simulate natural convection in a cubic cavity. *Journal of Computational Physics*, **2004**, 193, 260-274	4.1	111
345	Numerical simulation of flows around two circular cylinders by mesh-free least square-based finite difference methods. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 305-332	1.9	109
344	A generalized approach for implementing general boundary conditions in the GDQ free vibration analysis of plates. *International Journal of Solids and Structures*, **1997**, 34, 837-846	3.1	108
343	Simulation of incompressible viscous flows past a circular cylinder by hybrid FD scheme and meshless least square-based finite difference method. *Computer Methods in Applied Mechanics and Engineering*, **2004**, 193, 727-744	5.7	108
342	Microscale combustion research for application to micro thermophotovoltaic systems. *Energy Conversion and Management*, **2003**, 44, 2625-2634	10.6	107
341	An improved immersed boundary-lattice Boltzmann method for simulating three-dimensional incompressible flows. *Journal of Computational Physics*, **2010**, 229, 5022-5042	4.1	106
340	EXPLICIT COMPUTATION OF WEIGHTING COEFFICIENTS IN THE HARMONIC DIFFERENTIAL QUADRATURE. *Journal of Sound and Vibration*, **1997**, 204, 549-555	3.9	93
339	Parallel simulation of incompressible viscous flows by generalized differential quadrature. *Computing Systems in Engineering: an International Journal*, **1992**, 3, 271-281		92
338	Numerical study of natural convection in an eccentric annulus between a square outer cylinder and a circular inner cylinder using DQ method. *International Journal of Heat and Mass Transfer*, **2001**, 44, 3321-3333	4.9	88
337	Development of microthermophotovoltaic system. *Applied Physics Letters*, **2002**, 81, 5255-5257	3.4	87
336	Fast flow field prediction over airfoils using deep learning approach. *Physics of Fluids*, **2019**, 31, 057103	4.4	85
335	Alternative method to construct equilibrium distribution functions in lattice-Boltzmann method simulation of inviscid compressible flows at high Mach number. *Physical Review E*, **2007**, 75, 036706	2.4	85
334	Application of multi-block approach in the immersed boundary-lattice Boltzmann method for viscous fluid flows. *Journal of Computational Physics*, **2006**, 218, 460-478	4.1	85
333	Development of Lattice Boltzmann Flux Solver for Simulation of Incompressible Flows. *Advances in Applied Mathematics and Mechanics*, **2014**, 6, 436-460	2.1	83
332	A numerical study on RCCI engine fueled by biodiesel/methanol. *Energy Conversion and Management*, **2015**, 89, 798-807	10.6	80

331	A lattice Boltzmann BGK model for simulation of micro flows. *Europhysics Letters*, **2004**, 67, 600-606	1.6	80
330	An efficient approach for free vibration analysis of conical shells. *International Journal of Mechanical Sciences*, **1996**, 38, 935-949	5.5	78
329	Treatment of mixed and nonuniform boundary conditions in GDQ vibration analysis of rectangular plates. *Engineering Structures*, **1999**, 21, 125-134	4.7	75
328	An immersed boundary-lattice Boltzmann flux solver and its applications to fluid–structure interaction problems. *Journal of Fluids and Structures*, **2015**, 54, 440-465	3.1	74
327	Development of least-square-based two-dimensional finite-difference schemes and their application to simulate natural convection in a cavity. *Computers and Fluids*, **2004**, 33, 137-154	2.8	74
326	Boundary condition-enforced immersed boundary method for thermal flow problems with Dirichlet temperature condition and its applications. *Computers and Fluids*, **2012**, 57, 40-51	2.8	70
325	Numerical investigation of flows in Czochralski crystal growth by an axisymmetric lattice Boltzmann method. *Journal of Computational Physics*, **2003**, 186, 295-307	4.1	68
324	Effect of current-collector structure on performance of passive micro direct methanol fuel cell. *Journal of Power Sources*, **2007**, 164, 549-554	8.9	66
323	An improved multiphase lattice Boltzmann flux solver for three-dimensional flows with large density ratio and high Reynolds number. *Journal of Computational Physics*, **2015**, 302, 41-58	4.1	64
322	An upwind local RBF-DQ method for simulation of inviscid compressible flows. *Computer Methods in Applied Mechanics and Engineering*, **2005**, 194, 2001-2017	5.7	64
321	Lattice Boltzmann interface capturing method for incompressible flows. *Physical Review E*, **2005**, 72, 056705	2.4	64
320	Free vibration analysis of laminated composite cylindrical shells by DQM. *Composites Part B: Engineering*, **1997**, 28, 267-274	10	63
319	The application of special matrix product to differential quadrature solution of geometrically nonlinear bending of orthotropic rectangular plates. *Computers and Structures*, **2000**, 74, 65-76	4.5	63
318	SIMULATION OF NATURAL CONVECTION IN A SQUARE CAVITY BY TAYLOR SERIES EXPANSION- AND LEAST SQUARES-BASED LATTICE BOLTZMANN METHOD. *International Journal of Modern Physics C*, **2002**, 13, 1399-1414	1.1	62
317	On the equivalence of generalized differential quadrature and highest order finite difference scheme. *Computer Methods in Applied Mechanics and Engineering*, **1998**, 155, 249-260	5.7	61
316	Fourier expansion-based differential quadrature and its application to Helmholtz eigenvalue problems. *Communications in Numerical Methods in Engineering*, **1997**, 13, 643-653		60
315	Free-energy-based lattice Boltzmann model for the simulation of multiphase flows with density contrast. *Physical Review E*, **2014**, 89, 033309	2.4	59
314	Thermal lattice Boltzmann flux solver and its application for simulation of incompressible thermal flows. *Computers and Fluids*, **2014**, 94, 98-111	2.8	58

313	Simulation of flows around an impulsively started circular cylinder by Taylor series expansion- and least squares-based lattice Boltzmann method. *Journal of Computational Physics*, **2003**, 188, 176-193	4.1	57
312	Least-squares-based lattice Boltzmann method: a meshless approach for simulation of flows with complex geometry. *Physical Review E*, **2001**, 64, 045701	2.4	57
311	A thermal lattice Boltzmann model with diffuse scattering boundary condition for micro thermal flows. *Computers and Fluids*, **2007**, 36, 273-281	2.8	56
310	A mass-conserved diffuse interface method and its application for incompressible multiphase flows with large density ratio. *Journal of Computational Physics*, **2015**, 290, 336-351	4.1	55
309	AN AXISYMMETRIC INCOMPRESSIBLE LATTICE BOLTZMANN MODEL FOR PIPE FLOW. *International Journal of Modern Physics C*, **2006**, 17, 645-661	1.1	55
308	Free Vibration Analysis of Curvilinear Quadrilateral Plates by the Differential Quadrature Method. *Journal of Computational Physics*, **2000**, 163, 452-466	4.1	55
307	Inverse Design of Airfoil Using a Deep Convolutional Neural Network. *AIAA Journal*, **2019**, 57, 993-1003	2.1	55
306	Integrated radial basis functions-based differential quadrature method and its performance. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 969-984	1.9	53
305	Hybrid lattice Boltzmann finite-difference simulation of axisymmetric swirling and rotating flows. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 1707-1726	1.9	53
304	Numerical computation of three-dimensional incompressible viscous flows in the primitive variable form by local multiquadric differential quadrature method. *Computer Methods in Applied Mechanics and Engineering*, **2006**, 195, 516-533	5.7	52
303	Taylor-series expansion and least-squares-based lattice Boltzmann method: Two-dimensional formulation and its applications. *Physical Review E*, **2002**, 65, 036708	2.4	52
302	Solution of partial differential equations by a global radial basis function-based differential quadrature method. *Engineering Analysis With Boundary Elements*, **2004**, 28, 1217-1226	2.6	51
301	A Lattice Boltzmann Kinetic Model for Microflow and Heat Transfer. *Journal of Statistical Physics*, **2005**, 121, 239-255	1.5	51
300	An efficient immersed boundary method for thermal flow problems with heat flux boundary conditions. *International Journal of Heat and Mass Transfer*, **2013**, 64, 694-705	4.9	50
299	A prototype microthermophotovoltaic power generator. *Applied Physics Letters*, **2004**, 84, 3864-3866	3.4	49
298	Development of RBF-DQ method for derivative approximation and its application to simulate natural convection in concentric annuli. *Computational Mechanics*, **2002**, 29, 477-485	4	48
297	Lattice Boltzmann study of droplet motion inside a grooved channel. *Physics of Fluids*, **2009**, 21, 022103	4.4	46
296	Study on vacancy formation in ferroelectric PbTiO3 from ab initio. *Applied Physics Letters*, **2006**, 88, 142902	3.4	46

295	A generalized finite-difference (GFD) ALE scheme for incompressible flows around moving solid bodies on hybrid meshfree–Cartesian grids. *Journal of Computational Physics*, **2006**, 218, 510-548	4.1	46
294	Block-marching in time with DQ discretization: an efficient method for time-dependent problems. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 4587-4597	5.7	46
293	Numerical study of grid distribution effect on accuracy of DQ analysis of beams and plates by error estimation of derivative approximation. *International Journal for Numerical Methods in Engineering*, **2001**, 51, 159-179	2.4	46
292	A Simplified Lattice Boltzmann Method without Evolution of Distribution Function. *Advances in Applied Mathematics and Mechanics*, **2017**, 9, 1-22	2.1	45
291	Numerical computation of three-dimensional incompressible Navier–Stokes equations in primitive variable form by DQ method. *International Journal for Numerical Methods in Fluids*, **2003**, 43, 345-368	1.9	45
290	SIMULATION OF NATURAL CONVECTION IN ECCENTRIC ANNULI BETWEEN A SQUARE OUTER CYLINDER AND A CIRCULAR INNER CYLINDER USING LOCAL MQ-DQ METHOD. *Numerical Heat Transfer; Part A: Applications*, **2005**, 47, 291-313	2.3	45
289	A local radial basis functions–finite differences technique for the analysis of composite plates. *Engineering Analysis With Boundary Elements*, **2011**, 35, 363-374	2.6	44
288	Numerical study of flow characteristics behind a stationary circular cylinder with a flapping plate. *Physics of Fluids*, **2011**, 23, 073601	4.4	43
287	Prediction of micro-channel flows using direct simulation Monte Carlo. *Probabilistic Engineering Mechanics*, **2000**, 15, 213-219	2.6	43
286	Development of a prototype micro-thermophotovoltaic power generator. *Journal Physics D: Applied Physics*, **2004**, 37, 1017-1020	3	42
285	Flow control of a circular cylinder by using an attached flexible filament. *Physics of Fluids*, **2014**, 26, 103601	4.4	41
284	Numerical study on the power extraction performance of a flapping foil with a flexible tail. *Physics of Fluids*, **2015**, 27, 013602	4.4	41
283	Vibration analysis of arbitrarily shaped membranes using local radial basis function-based differential quadrature method. *Journal of Sound and Vibration*, **2007**, 306, 252-270	3.9	41
282	A simple distribution function-based gas-kinetic scheme for simulation of viscous incompressible and compressible flows. *Journal of Computational Physics*, **2014**, 274, 611-632	4.1	40
281	Mobility-dependent bifurcations in capillarity-driven two-phase fluid systems by using a lattice Boltzmann phase-field model. *International Journal for Numerical Methods in Fluids*, **2009**, 60, 203-225	1.9	40
280	A solution-adaptive lattice Boltzmann method for two-dimensional incompressible viscous flows. *Journal of Computational Physics*, **2011**, 230, 2246-2269	4.1	40
279	Circular function-based gas-kinetic scheme for simulation of inviscid compressible flows. *Journal of Computational Physics*, **2013**, 255, 540-557	4.1	39
278	AN AXISYMMETRIC LATTICE BOLTZMANN MODEL FOR SIMULATION OF TAYLOR–COUETTE FLOWS BETWEEN TWO CONCENTRIC CYLINDERS. *International Journal of Modern Physics C*, **2003**, 14, 785-796	1.1	39

277	Application of differential quadrature method to simulate natural convection in a concentric annulus. *International Journal for Numerical Methods in Fluids*, **1999**, 30, 977-993	1.9	39
276	A hybrid phase field multiple relaxation time lattice Boltzmann method for the incompressible multiphase flow with large density contrast. *International Journal for Numerical Methods in Fluids*, **2015**, 77, 526-543	1.9	38
275	Comparison of two approaches for implementing stream function boundary conditions in DQ simulation of natural convection in a square cavity. *International Journal of Heat and Fluid Flow*, **1998**, 19, 59-68	2.4	38
274	Influence of the Reynolds number on chaotic mixing in a spatially periodic micromixer and its characterization using dynamical system techniques. *Journal of Micromechanics and Microengineering*, **2006**, 16, 53-61	2	38
273	Pitching-motion-activated flapping foil near solid walls for power extraction: A numerical investigation. *Physics of Fluids*, **2014**, 26, 083601	4.4	36
272	Study of catalytic combustion and its effect on microthermophotovoltaic power generators. *Journal Physics D: Applied Physics*, **2005**, 38, 4252-4255	3	36
271	Simplified multiphase lattice Boltzmann method for simulating multiphase flows with large density ratios and complex interfaces. *Physical Review E*, **2018**, 98,	2.4	36
270	Numerical simulation of natural convection between two elliptical cylinders using DQ method. *International Journal of Heat and Mass Transfer*, **2004**, 47, 797-808	4.9	35
269	Numerical simulation of natural convection in a concentric annulus between a square outer cylinder and a circular inner cylinder using the Taylor-series-expansion and least-squares-based lattice Boltzmann method. *Physical Review E*, **2003**, 67, 026701	2.4	35
268	Error estimates of local multiquadric-based differential quadrature (LMQDQ) method through numerical experiments. *International Journal for Numerical Methods in Engineering*, **2005**, 63, 1513-1529	2.4	35
267	Analysis of micro-Couette flow using the Burnett equations. *International Journal of Heat and Mass Transfer*, **2001**, 44, 4139-4146	4.9	35
266	Numerical simulation of flows from free molecular regime to continuum regime by a DVM with streaming and collision processes. *Journal of Computational Physics*, **2016**, 306, 291-310	4.1	34
265	A moment conservation-based non-free parameter compressible lattice Boltzmann model and its application for flux evaluation at cell interface. *Computers and Fluids*, **2013**, 79, 190-199	2.8	34
264	Experimental study of micro-thermophotovoltaic systems with different combustor configurations. *Energy Conversion and Management*, **2007**, 48, 1238-1244	10.6	34
263	Generalized differential and integral quadrature and their application to solve boundary layer equations. *International Journal for Numerical Methods in Fluids*, **1995**, 21, 723-733	1.9	34
262	Flow of second-order fluid in a curved duct with square cross-section. *Journal of Non-Newtonian Fluid Mechanics*, **2010**, 165, 323-339	2.7	33
261	Numerical investigation of transporting droplets by spatiotemporally controlling substrate wettability. *Journal of Colloid and Interface Science*, **2008**, 328, 124-33	9.3	33
260	Numerical simulation of natural convection in a square cavity by SIMPLE-generalized differential quadrature method. *Computers and Fluids*, **2002**, 31, 209-226	2.8	33

259	An axisymmetric incompressible lattice BGK model for simulation of the pulsatile flow in a circular pipe. *International Journal for Numerical Methods in Fluids*, **2005**, 49, 99-116	1.9	33
258	On improvements of simplified and highly stable lattice Boltzmann method: Formulations, boundary treatment, and stability analysis. *International Journal for Numerical Methods in Fluids*, **2018**, 87, 161-179	1.9	32
257	MICROTHERMOPHOTOVOLTAICS POWER SYSTEM FOR PORTABLE MEMS DEVICES. *Microscale Thermophysical Engineering*, **2005**, 9, 85-97		31
256	Immersed boundary-simplified lattice Boltzmann method for incompressible viscous flows. *Physics of Fluids*, **2018**, 30, 053601	4.4	30
255	Simulation of three-dimensional flows over moving objects by an improved immersed boundary lattice Boltzmann method. *International Journal for Numerical Methods in Fluids*, **2012**, 68, 977-1004	1.9	30
254	THERMAL CURVED BOUNDARY TREATMENT FOR THE THERMAL LATTICE BOLTZMANN EQUATION. *International Journal of Modern Physics C*, **2006**, 17, 631-643	1.1	30
253	Investigation of Stability and Hydrodynamics of Different Lattice Boltzmann Models. *Journal of Statistical Physics*, **2004**, 117, 665-680	1.5	30
252	Domain-free discretization method for doubly connected domain and its application to simulate natural convection in eccentric annuli. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 1827-1841	5.7	30
251	Research on micro-thermophotovoltaic power generators. *Solar Energy Materials and Solar Cells*, **2003**, 80, 95-104	6.4	30
250	Numerical solutions of incompressible Navier-Stokes equations by generalized differential quadrature. *Finite Elements in Analysis and Design*, **1994**, 18, 83-97	2.2	30
249	Development of LBGK and incompressible LBGK-based lattice Boltzmann flux solvers for simulation of incompressible flows. *International Journal for Numerical Methods in Fluids*, **2014**, 75, 344-364	1.9	29
248	A stencil adaptive algorithm for finite difference solution of incompressible viscous flows. *Journal of Computational Physics*, **2006**, 214, 397-420	4.1	29
247	Highly accurate simplified lattice Boltzmann method. *Physics of Fluids*, **2018**, 30, 103605	4.4	29
246	A three-dimensional explicit sphere function-based gas-kinetic flux solver for simulation of inviscid compressible flows. *Journal of Computational Physics*, **2015**, 295, 322-339	4.1	28
245	Analytical and numerical study of tissue cryofreezing via the immersed boundary method. *International Journal of Heat and Mass Transfer*, **2015**, 83, 1-10	4.9	28
244	Thermoelastic response of thin plate with variable material properties under transient thermal shock. *International Journal of Mechanical Sciences*, **2015**, 104, 200-206	5.5	28
243	From Lattice Boltzmann Method to Lattice Boltzmann Flux Solver. *Entropy*, **2015**, 17, 7713-7735	2.8	28
242	Explicit formulations of gas-kinetic flux solver for simulation of incompressible and compressible viscous flows. *Journal of Computational Physics*, **2015**, 300, 492-519	4.1	27

241	Hybrid multiple-relaxation-time lattice-Boltzmann finite-difference method for axisymmetric multiphase flows. *Journal of Physics A: Mathematical and Theoretical*, **2013**, 46, 055501	2	27
240	Computational investigation of B-site donor doping effect on fatigue behavior of lead zirconate titanate. *Applied Physics Letters*, **2006**, 89, 152909	3.4	27
239	APPLICATION OF GDQ METHOD FOR THE STUDY OF NATURAL CONVECTION IN HORIZONTAL ECCENTRIC ANNULI. *Numerical Heat Transfer; Part A: Applications*, **2002**, 41, 803-815	2.3	27
238	Efficient Aerodynamic Shape Optimization with Deep-Learning-Based Geometric Filtering. *AIAA Journal*, **2020**, 58, 4243-4259	2.1	26
237	A fractional step axisymmetric lattice Boltzmann flux solver for incompressible swirling and rotating flows. *Computers and Fluids*, **2014**, 96, 204-214	2.8	26
236	A simplified thermal lattice Boltzmann method without evolution of distribution functions. *International Journal of Heat and Mass Transfer*, **2017**, 105, 741-757	4.9	26
235	Simulation of fish swimming and manoeuvring by an SVD-GFD method on a hybrid meshfree-Cartesian grid. *Computers and Fluids*, **2010**, 39, 403-430	2.8	26
234	Lattice Boltzmann method simulation gas slip flow in long microtubes. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2007**, 17, 587-607	4.5	26
233	A Hybrid Lattice Boltzmann Flux Solver for Simulation of Viscous Compressible Flows. *Advances in Applied Mathematics and Mechanics*, **2016**, 8, 887-910	2.1	26
232	Development of a discrete gas-kinetic scheme for simulation of two-dimensional viscous incompressible and compressible flows. *Physical Review E*, **2016**, 93, 033311	2.4	25
231	Boundary condition-enforced immersed boundary-lattice Boltzmann flux solver for thermal flows with Neumann boundary conditions. *Journal of Computational Physics*, **2016**, 306, 237-252	4.1	25
230	An immersed boundary-simplified sphere function-based gas kinetic scheme for simulation of 3D incompressible flows. *Physics of Fluids*, **2017**, 29, 083605	4.4	25
229	Electronic properties of A-site substituted lead zirconate titanate: Density functional calculations. *Physical Review B*, **2007**, 76,	3.3	25
228	A fractional step lattice Boltzmann method for simulating high Reynolds number flows. *Mathematics and Computers in Simulation*, **2006**, 72, 201-205	3.3	25
227	Three-dimensional simplified and unconditionally stable lattice Boltzmann method for incompressible isothermal and thermal flows. *Physics of Fluids*, **2017**, 29, 053601	4.4	24
226	Numerical investigation of vortex-induced vibration of a circular cylinder with a hinged flat plate. *Physics of Fluids*, **2014**, 26, 063601	4.4	24
225	Three-Dimensional Lattice Boltzmann Flux Solver and Its Applications to Incompressible Isothermal and Thermal Flows. *Communications in Computational Physics*, **2015**, 18, 593-620	2.4	24
224	Free vibration analysis of plates using least-square-based finite difference method. *Computer Methods in Applied Mechanics and Engineering*, **2007**, 196, 1330-1343	5.7	24

223	Numerical modeling of dielectrophoresis using a meshless approach. *Journal of Micromechanics and Microengineering*, **2005**, 15, 1040-1048	2	24
222	AN EFFICIENT IMPLICIT MESH-FREE METHOD TO SOLVE TWO-DIMENSIONAL COMPRESSIBLE EULER EQUATIONS. *International Journal of Modern Physics C*, **2005**, 16, 439-454	1.1	24
221	An improved discrete velocity method (DVM) for efficient simulation of flows in all flow regimes. *Physics of Fluids*, **2018**, 30, 062005	4.4	23
220	Fluid Dynamics of Flapping Insect Wing in Ground Effect. *Journal of Bionic Engineering*, **2014**, 11, 52-60	2.7	23
219	TAYLOR SERIES EXPANSION AND LEAST SQUARES-BASED LATTICE BOLTZMANN METHOD: THREE-DIMENSIONAL FORMULATION AND ITS APPLICATIONS. *International Journal of Modern Physics C*, **2003**, 14, 925-944	1.1	23
218	Effects of step height on wall temperature of a microcombustor. *Journal of Micromechanics and Microengineering*, **2005**, 15, 207-212	2	23
217	An adaptive immersed boundary-lattice Boltzmann method for simulating a flapping foil in ground effect. *Computers and Fluids*, **2015**, 106, 171-184	2.8	22
216	Comparative study of discrete velocity method and high-order lattice Boltzmann method for simulation of rarefied flows. *Computers and Fluids*, **2017**, 146, 125-142	2.8	21
215	Numerical study of flow control via the interaction between a circular cylinder and a flexible plate. *Journal of Fluids and Structures*, **2014**, 49, 594-613	3.1	21
214	FREE VIBRATION AND BUCKLING ANALYSIS OF HIGHLY SKEWED PLATES BY LEAST SQUARES-BASED FINITE DIFFERENCE METHOD. *International Journal of Structural Stability and Dynamics*, **2010**, 10, 225-252	1.9	21
213	Three-dimensional lattice Boltzmann interface capturing method for incompressible flows. *International Journal for Numerical Methods in Fluids*, **2008**, 56, 1653-1671	1.9	21
212	Numerical analysis of flow and thermal fields in arbitrary eccentric annulus by differential quadrature method. *Heat and Mass Transfer*, **2002**, 38, 597-608	2.2	21
211	High-order simplified thermal lattice Boltzmann method for incompressible thermal flows. *International Journal of Heat and Mass Transfer*, **2018**, 127, 1-16	4.9	20
210	Development of an immersed boundary-phase field-lattice Boltzmann method for Neumann boundary condition to study contact line dynamics. *Journal of Computational Physics*, **2013**, 234, 8-32	4.1	20
209	A decoupling multiple-relaxation-time lattice Boltzmann flux solver for non-Newtonian power-law fluid flows. *Journal of Non-Newtonian Fluid Mechanics*, **2016**, 235, 20-28	2.7	20
208	Immersed boundary-simplified thermal lattice Boltzmann method for incompressible thermal flows. *Physics of Fluids*, **2020**, 32, 013605	4.4	19
207	Ground effect on the power extraction performance of a flapping wing biomimetic energy generator. *Journal of Fluids and Structures*, **2015**, 54, 247-262	3.1	19
206	Novel immersed boundary methods for thermal flow problems. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2013**, 23, 124-142	4.5	19

205	A local domain-free discretization method for simulation of incompressible flows over moving bodies. *International Journal for Numerical Methods in Fluids*, **2011**, 66, 162-182	1.9	19
204	A LATTICE BOLTZMANN METHOD-BASED FLUX SOLVER AND ITS APPLICATION TO SOLVE SHOCK TUBE PROBLEM. *Modern Physics Letters B*, **2009**, 23, 313-316	1.6	19
203	A Phase-Field-Based Hybrid Lattice-Boltzmann Finite-Volume Method and Its Application to Simulate Droplet Motion under Electrowetting Control. *Journal of Adhesion Science and Technology*, **2012**, 26, 1825-1851	2	19
202	Ab initio study of formations of neutral vacancies in ferroelectric PbTiO3 at different oxygen atmospheres. *Journal of Alloys and Compounds*, **2008**, 449, 362-365	5.7	19
201	Predicting the temperature of a premixed flame in a microcombustor. *Journal of Applied Physics*, **2004**, 96, 3524-3530	2.5	19
200	Analysis of elliptical waveguides by differential quadrature method. *IEEE Transactions on Microwave Theory and Techniques*, **2000**, 48, 319-322	4.1	19
199	Development and Comparative Studies of Three Non-free Parameter Lattice Boltzmann Models for Simulation of Compressible Flows. *Advances in Applied Mathematics and Mechanics*, **2012**, 4, 454-472	2.1	19
198	A free energy-based surface tension force model for simulation of multiphase flows by level-set method. *Journal of Computational Physics*, **2017**, 345, 404-426	4.1	18
197	A boundary condition-enforced immersed boundary method for compressible viscous flows. *Computers and Fluids*, **2016**, 136, 104-113	2.8	18
196	An efficient immersed boundary-lattice Boltzmann flux solver for simulation of 3D incompressible flows with complex geometry. *Computers and Fluids*, **2016**, 124, 54-66	2.8	18
195	Investigation of flow characteristics around a stationary circular cylinder with an undulatory plate. *European Journal of Mechanics, B/Fluids*, **2014**, 48, 27-39	2.4	18
194	Particle number per cell and scaling factor effect on accuracy of DSMC simulation of micro flows. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2005**, 15, 827-841	4.5	18
193	NUMERICAL SIMULATION OF ISOTHERMAL MICRO FLOWS BY LATTICE BOLTZMANN METHOD AND THEORETICAL ANALYSIS OF THE DIFFUSE SCATTERING BOUNDARY CONDITION. *International Journal of Modern Physics C*, **2005**, 16, 1927-1941	1.1	18
192	A simple mass-conserved level set method for simulation of multiphase flows. *Physics of Fluids*, **2018**, 30, 040908	4.4	17
191	Numerical simulation of flows in Czochralski crystal growth by second-order upwind QUICK scheme. *Journal of Crystal Growth*, **1997**, 173, 123-131	1.6	17
190	A New Differential Lattice Boltzmann Equation and Its Application to Simulate Incompressible Flows on Non-Uniform Grids. *Journal of Statistical Physics*, **2002**, 107, 329-342	1.5	17
189	SIMULATION OF UNSTEADY INCOMPRESSIBLE FLOWS BY USING TAYLOR SERIES EXPANSION- AND LEAST SQUARE-BASED LATTICE BOLTZMANN METHOD. *International Journal of Modern Physics C*, **2002**, 13, 719-738	1.1	17
188	Numerical studies of unsteady boundary layer flows past an impulsively started circular cylinder by GDQ and GIQ approaches. *Computer Methods in Applied Mechanics and Engineering*, **1996**, 135, 229-241	5.7	17

187	Development of discrete gas kinetic scheme for simulation of 3D viscous incompressible and compressible flows. *Journal of Computational Physics*, **2016**, 319, 129-144	4.1	17
186	An implicit scheme with memory reduction technique for steady state solutions of DVBE in all flow regimes. *Physics of Fluids*, **2018**, 30, 040901	4.4	16
185	An adaptive mesh refinement-multiphase lattice Boltzmann flux solver for simulation of complex binary fluid flows. *Physics of Fluids*, **2017**, 29, 123604	4.4	16
184	Applications of stencil-adaptive finite difference method to incompressible viscous flows with curved boundary. *Computers and Fluids*, **2007**, 36, 786-793	2.8	16
183	A singular-value decomposition (SVD)-based generalized finite difference (GFD) method for close-interaction moving boundary flow problems. *International Journal for Numerical Methods in Engineering*, **2008**, 76, 1892-1929	2.4	16
182	Mesh-free least-squares-based finite difference method for large-amplitude free vibration analysis of arbitrarily shaped thin plates. *Journal of Sound and Vibration*, **2008**, 317, 955-974	3.9	16
181	SIMULATION OF SHOCK-WAVE PROPAGATION WITH FINITE VOLUME LATTICE BOLTZMANN METHOD. *International Journal of Modern Physics C*, **2007**, 18, 447-454	1.1	16
180	Lattice-BGK simulation of steady flow through vascular tubes with double constrictions. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2006**, 16, 185-203	4.5	16
179	Lattice kinetic scheme for the incompressible viscous thermal flows on arbitrary meshes. *Physical Review E*, **2004**, 69, 016703	2.4	16
178	Analysis of dielectrophoretic electrode arrays for nanoparticle manipulation. *Computational Materials Science*, **2004**, 30, 320-325	3.2	16
177	A new discretization method and its application to solve incompressible Navier–Stokes equations. *Computational Mechanics*, **2001**, 27, 292-301	4	16
176	Application of gdq scheme to simulate incompressible viscous flows around complex geometries. *Mechanics Research Communications*, **1995**, 22, 319-325	2.2	16
175	Extension of lattice Boltzmann flux solver for simulation of 3D viscous compressible flows. *Computers and Mathematics With Applications*, **2016**, 71, 2069-2081	2.7	16
174	A simplified circular function–based gas kinetic scheme for simulation of incompressible flows. *International Journal for Numerical Methods in Fluids*, **2017**, 85, 583-598	1.9	15
173	Lattice Boltzmann study of bubble entrapment during droplet impact. *International Journal for Numerical Methods in Fluids*, **2011**, 65, 655-682	1.9	15
172	Defect and electronic structures of acceptor substituted lead titanate. *Applied Physics Letters*, **2008**, 92, 112909	3.4	15
171	An object-oriented and quadrilateral-mesh based solution adaptive algorithm for compressible multi-fluid flows. *Journal of Computational Physics*, **2008**, 227, 6895-6921	4.1	15
170	Numerical study of eccentric Couette–Taylor flows and effect of eccentricity on flow patterns. *Theoretical and Computational Fluid Dynamics*, **2004**, 18, 43-59	2.3	15

169	RADIAL BASIS FUNCTION-ENHANCED DOMAIN-FREE DISCRETIZATION METHOD AND ITS APPLICATIONS. *Numerical Heat Transfer, Part B: Fundamentals*, **2004**, 46, 269-282	1.3	15
168	Entropy generation during microcombustion. *Journal of Applied Physics*, **2005**, 97, 084914	2.5	15
167	Fluid□tructure interaction simulation based on immersed boundary-lattice Boltzmann flux solver and absolute nodal coordinate formula. *Physics of Fluids*, **2020**, 32, 047109	4.4	14
166	An improved three-dimensional implicit discrete velocity method on unstructured meshes for all Knudsen number flows. *Journal of Computational Physics*, **2019**, 396, 738-760	4.1	14
165	. *Journal of Microelectromechanical Systems*, **2004**, 13, 851-856	2.5	14
164	An improved multiphase lattice Boltzmann flux solver for the simulation of incompressible flow with large density ratio and complex interface. *Physics of Fluids*, **2021**, 33, 033306	4.4	14
163	Simulation of self-propelled anguilliform swimming by local domain-free discretization method. *International Journal for Numerical Methods in Fluids*, **2012**, 69, 1891-1906	1.9	13
162	Solutions of three-dimensional boundary layer equations by global methods of generalized differential-integral quadrature. *International Journal of Numerical Methods for Heat and Fluid Flow*, **1996**, 6, 61-75	4.5	13
161	Extension of domain-free discretization method to simulate compressible flows over fixed and moving bodies. *International Journal for Numerical Methods in Fluids*, **2007**, 53, 175-199	1.9	13
160	On Implementation of Boundary Conditions in the Application of Finite Volume Lattice Boltzmann Method. *Journal of Statistical Physics*, **2002**, 107, 539-556	1.5	13
159	Solution of Helmholtz equation by differential quadrature method. *Computer Methods in Applied Mechanics and Engineering*, **1999**, 175, 203-212	5.7	13
158	The Simplified Lattice Boltzmann Method on Non-Uniform Meshes. *Communications in Computational Physics*, **2018**, 23,	2.4	13
157	Simplified lattice Boltzmann method for non-Newtonian power-law fluid flows. *International Journal for Numerical Methods in Fluids*, **2020**, 92, 38-54	1.9	13
156	Numerical investigation of vortex induced rotation of two square cylinders in tandem arrangement. *Ocean Engineering*, **2019**, 171, 485-495	3.9	13
155	Incorporating an immersed boundary method to study thermal effects of vascular systems during tissue cryo-freezing. *Journal of Thermal Biology*, **2017**, 64, 92-99	2.9	12
154	Reduced order modeling-based discrete unified gas kinetic scheme for rarefied gas flows. *Physics of Fluids*, **2020**, 32, 067108	4.4	12
153	Third-order discrete unified gas kinetic scheme for continuum and rarefied flows: Low-speed isothermal case. *Physical Review E*, **2018**, 97, 023306	2.4	12
152	NUMERICAL STUDY OF 2D MULTIPHASE FLOWS OVER GROOVED SURFACE BY LATTICE BOLTZMANN METHOD. *International Journal of Modern Physics C*, **2007**, 18, 492-500	1.1	12

151	Application of Multi-Domain GDQ Method to Analysis of Waveguides with Rectangular Boundaries. *Progress in Electromagnetics Research*, **1999**, 21, 1-19	3.8	12
150	Application of GDQ scheme to simulate natural convection in a square cavity. *International Communications in Heat and Mass Transfer*, **1994**, 21, 809-817	5.8	12
149	A simplified axisymmetric lattice Boltzmann method for incompressible swirling and rotating flows. *Physics of Fluids*, **2019**, 31, 023605	4.4	12
148	Simulation of conjugate heat transfer problems by lattice Boltzmann flux solver. *International Journal of Heat and Mass Transfer*, **2019**, 137, 895-907	4.9	11
147	Characteristics of premixed flame in microcombustors with different diameters. *Applied Thermal Engineering*, **2005**, 25, 271-281	5.8	11
146	Different interface approximations in multi-domain GDQ simulation of Czochralski bulk flows. *International Journal of Numerical Methods for Heat and Fluid Flow*, **1998**, 8, 424-444	4.5	11
145	Numerical study on the freely falling plate: Effects of density ratio and thickness-to-length ratio. *Physics of Fluids*, **2016**, 28, 103603	4.4	11
144	Improved fully implicit discrete-velocity method for efficient simulation of flows in all flow regimes. *Physical Review E*, **2018**, 98,	2.4	11
143	Development of an efficient gas kinetic scheme for simulation of two-dimensional incompressible thermal flows. *Physical Review E*, **2018**, 97, 013305	2.4	10
142	A fractional-step lattice Boltzmann flux solver for axisymmetric thermal flows. *Numerical Heat Transfer, Part B: Fundamentals*, **2016**, 69, 111-129	1.3	10
141	An efficient boundary condition-implemented immersed boundary-lattice Boltzmann method for simulation of 3D incompressible viscous flows. *Computers and Fluids*, **2014**, 100, 165-175	2.8	10
140	A Truly Second-Order and Unconditionally Stable Thermal Lattice Boltzmann Method. *Applied Sciences (Switzerland)*, **2017**, 7, 277	2.6	10
139	A stream function□orticity formulation-based immersed boundary method and its applications. *International Journal for Numerical Methods in Fluids*, **2012**, 70, 627-645	1.9	10
138	Operator-splitting method for the analysis of cavitation in liquid-lubricated herringbone grooved journal bearings. *International Journal for Numerical Methods in Fluids*, **2004**, 44, 765-775	1.9	10
137	A numerical study of cavitation foot-prints in liquid-lubricated asymmetrical herringbone grooved journal bearings. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2002**, 12, 518-540	4.5	10
136	A high order least square-based finite difference-finite volume method with lattice Boltzmann flux solver for simulation of incompressible flows on unstructured grids. *Journal of Computational Physics*, **2020**, 401, 109019	4.1	10
135	An immersed boundary-gas kinetic flux solver for simulation of incompressible flows. *Computers and Fluids*, **2017**, 142, 45-56	2.8	9
134	On the re-initialization of fluid interfaces in diffuse interface method. *Computers and Fluids*, **2018**, 166, 209-217	2.8	9

133	A solution adaptive simulation of compressible multi-fluid flows with general equation of state. *International Journal for Numerical Methods in Fluids*, **2011**, 67, 616-637	1.9	9
132	Simulation of incompressible viscous flows around moving objects by a variant of immersed boundary-lattice Boltzmann method. *International Journal for Numerical Methods in Fluids*, **2009**, 62, n/a-n/a	1.9	9
131	On the performance of three iterative methods for solution of GDQ algebraic equations. *Computer Methods in Applied Mechanics and Engineering*, **1998**, 167, 1-15	5.7	9
130	Mixing characteristics in a ventilated room with non-isothermal ceiling air supply. *Building and Environment*, **1998**, 34, 245-251	6.5	9
129	Adaptive mesh refinement-enhanced local DFD method and its application to solve Navier–Stokes equations. *International Journal for Numerical Methods in Fluids*, **2006**, 51, 897-912	1.9	9
128	Application of Taylor series expansion and Least-squares-based lattice Boltzmann method to simulate turbulent flows. *Journal of Turbulence*, **2006**, 7, N38	2.1	9
127	Numerical comparison of least square-based finite-difference (LSFD) and radial basis function-based finite-difference (RBFFD) methods. *Computers and Mathematics With Applications*, **2006**, 51, 1297-1310	2.7	9
126	Application of GDQ Method for Study of Mixed Convection in Horizontal Eccentric Annuli. *International Journal of Computational Fluid Dynamics*, **2004**, 18, 71-79	1.2	9
125	A PLATFORM FOR DEVELOPING NEW LATTICE BOLTZMANN MODELS. *International Journal of Modern Physics C*, **2005**, 16, 61-84	1.1	9
124	TECHNIQUES TO ENHANCE FLUID MICRO-MIXING AND CHAOTIC MICROMIXERS. *Modern Physics Letters B*, **2005**, 19, 1567-1570	1.6	9
123	Numerical study of wave interaction generated by two ships moving parallely in shallow water. *Computer Methods in Applied Mechanics and Engineering*, **2001**, 190, 2099-2110	5.7	9
122	A mass-conserved fractional step axisymmetric lattice Boltzmann flux solver for incompressible multiphase flows with large density ratio. *Physics of Fluids*, **2020**, 32, 103308	4.4	9
121	Numerical analysis of a clinically-extracted vascular tissue during cryo-freezing using immersed boundary method. *International Journal of Thermal Sciences*, **2016**, 110, 109-118	4.1	9
120	A local domain-free discretization method to simulate three-dimensional compressible inviscid flows. *International Journal for Numerical Methods in Fluids*, **2009**, 61, 970-986	1.9	8
119	An evaluation of a 3D free-energy-based lattice Boltzmann model for multiphase flows with large density ratio. *International Journal for Numerical Methods in Fluids*, **2009**, 63, n/a-n/a	1.9	8
118	Application of local DFD method to simulate unsteady flows around an oscillating circular cylinder. *International Journal for Numerical Methods in Fluids*, **2008**, 58, 1223-1236	1.9	8
117	Manipulation of bioparticles using traveling wave dielectrophoresis: numerical approach. *International Journal of Mechanics and Materials in Design*, **2004**, 1, 115-130	2.5	8
116	Taylor series expansion- and least square-based Lattice Boltzmann method: an efficient approach for simulation of incompressible viscous flows. *Progress in Computational Fluid Dynamics*, **2005**, 5, 27	0.7	8

115	The more actual macroscopic equations recovered from lattice Boltzmann equation and their applications. *Journal of Computational Physics*, **2020**, 415, 109546	4.1	8
114	An immersed boundary-lattice boltzmann flux solver in a moving frame to study three-dimensional freely falling rigid bodies. *Journal of Fluids and Structures*, **2017**, 68, 444-465	3.1	7
113	An improved discrete gas-kinetic scheme for two-dimensional viscous incompressible and compressible flows. *Physics of Fluids*, **2019**, 31, 066103	4.4	7
112	A coupled immersed boundary-lattice Boltzmann method and its simulation for biomimetic problems. *Theoretical and Applied Mechanics Letters*, **2015**, 5, 16-19	1.8	7
111	Extension of local domain-free discretization method to simulate 3D flows with complex moving boundaries. *Computers and Fluids*, **2012**, 64, 98-107	2.8	7
110	An efficient approach for numerical simulation of flows in Czochralski crystal growth. *Journal of Crystal Growth*, **1997**, 181, 427-436	1.6	7
109	Comparative study of effects of Mo and W dopants on the ferroelectric property of Pb(Zr0.3Ti0.7) thin films. *Journal Physics D: Applied Physics*, **2008**, 41, 135402	3	7
108	Three-dimensional lattice Boltzmann BGK model and its application to flows with heat transfer in a rectangular microchannel. *International Journal for Numerical Methods in Fluids*, **2006**, 50, 1321-1334	1.9	7
107	Ferroelectrical properties of W-doped lead zirconate titanate. *Journal of Applied Physics*, **2007**, 102, 074119	2.5	7
106	A novel solver for simulation of flows from continuum regime to rarefied regime at moderate Knudsen number. *Journal of Computational Physics*, **2020**, 415, 109548	4.1	7
105	High-order least-square-based finite-difference-finite-volume method for simulation of incompressible thermal flows on arbitrary grids. *Physical Review E*, **2019**, 100, 063308	2.4	7
104	On the immersed boundary-lattice Boltzmann simulations of incompressible flows with freely moving objects. *International Journal for Numerical Methods in Fluids*, **2017**, 83, 331-350	1.9	6
103	Three-dimensional high-order least square-based finite difference-finite volume method on unstructured grids. *Physics of Fluids*, **2020**, 32, 123604	4.4	6
102	Oblique drop impact on thin film: Splashing dynamics at moderate impingement angles. *Physics of Fluids*, **2020**, 32, 033303	4.4	6
101	A simple gas kinetic scheme for simulation of 3D incompressible thermal flows. *Numerical Heat Transfer, Part B: Fundamentals*, **2017**, 72, 450-468	1.3	6
100	A Lyapunov Formulation for Efficient Solution of the Poisson and Convection-Diffusion Equations by the Differential Quadrature Method. *Journal of Computational Physics*, **1998**, 141, 78-84	4.1	6
99	LSFD method for accurate vibration modes and modal stress-resultants of freely vibrating plates that model VLFS. *Computers and Structures*, **2006**, 84, 2329-2339	4.5	6
98	NUMERICAL SIMULATION OF FLOWS PAST A ROTATIONAL CIRCULAR CYLINDER BY TAYLOR-SERIES-EXPANSION AND LEAST SQUARES-BASED LATTICE BOLTZMANN METHOD. *International Journal of Modern Physics C*, **2005**, 16, 1753-1770	1.1	6

97	Lattice Boltzmann and Gas Kinetic Flux Solvers. *Advances in Computational Fluid Dynamics*, **2020**,	4	6
96	Explicit formulations of G13-based gas kinetic flux solver (G13-GKFS) for simulation of continuum and rarefied flows. *Physics of Fluids*, **2021**, 33, 037133	4.4	6
95	A Switch Function-Based Gas-Kinetic Scheme for Simulation of Inviscid and Viscous Compressible Flows. *Advances in Applied Mathematics and Mechanics*, **2016**, 8, 703-721	2.1	6
94	Numerical investigation on performance of three solution reconstructions at cell interface in DVM simulation of flows in all Knudsen number regimes. *International Journal for Numerical Methods in Fluids*, **2019**, 90, 545-563	1.9	5
93	On numerical diffusion of simplified lattice Boltzmann method. *International Journal for Numerical Methods in Fluids*, **2020**, 92, 1198-1211	1.9	5
92	Double distribution function-based discrete gas kinetic scheme for viscous incompressible and compressible flows. *Journal of Computational Physics*, **2020**, 412, 109428	4.1	5
91	A generalized minimal residual method-based immersed boundary-lattice Boltzmann flux solver coupled with finite element method for non-linear fluid-structure interaction problems. *Physics of Fluids*, **2019**, 31, 103603	4.4	5
90	Computation of modal stress resultants for completely free vibrating plates by LSFD method. *Journal of Sound and Vibration*, **2006**, 297, 704-726	3.9	5
89	NEW LATTICE KINETIC SCHEMES FOR INCOMPRESSIBLE VISCOUS FLOWS. *International Journal of Modern Physics C*, **2004**, 15, 1197-1213	1.1	5
88	Implementation of multi-grid approach in domain-free discretization method to speed up convergence. *Computer Methods in Applied Mechanics and Engineering*, **2003**, 192, 2425-2438	5.7	5
87	An efficient multilayer RBF neural network and its application to regression problems. *Neural Computing and Applications*,1	4.8	5
86	Simulation of Incompressible Viscous Flows by Local DFD-Immersed Boundary Method. *Advances in Applied Mathematics and Mechanics*, **2012**, 4, 311-324	2.1	5
85	A Boundary Condition-Implemented Immersed Boundary-Lattice Boltzmann Method and Its Application for Simulation of Flows Around a Circular Cylinder. *Advances in Applied Mathematics and Mechanics*, **2014**, 6, 811-829	2.1	5
84	A novel gas kinetic flux solver for simulation of continuum and slip flows. *International Journal for Numerical Methods in Fluids*, **2021**, 93, 2863-2888	1.9	5
83	High-order gas kinetic flux solver for simulation of two dimensional incompressible flows. *Physics of Fluids*, **2021**, 33, 017107	4.4	5
82	An implicit simplified sphere function-based gas kinetic scheme for simulation of 3D incompressible isothermal flows. *Computers and Fluids*, **2018**, 160, 204-218	2.8	5
81	A kinetic theory-based axisymmetric lattice Boltzmann flux solver for isothermal and thermal swirling flows. *Journal of Computational Physics*, **2019**, 392, 141-160	4.1	4
80	A hybrid lattice Boltzmann flux solver for integrated hypersonic fluid-thermal-structural analysis. *Chinese Journal of Aeronautics*, **2020**, 33, 2295-2312	3.7	4

79	AN ISOPARAMETRIC TRANSFORMATION-BASED INTERPOLATION-SUPPLEMENTED LATTICE BOLTZMANN METHOD AND ITS APPLICATION. *Modern Physics Letters B*, **2010**, 24, 1315-1318	1.6	4
78	Stencil adaptive diffuse interface method for simulation of two-dimensional incompressible multiphase flows. *Computers and Fluids*, **2010**, 39, 936-944	2.8	4
77	Hydrodynamic performance of an unconstrained flapping swimmer with flexible fin: A numerical study. *Physics of Fluids*, **2022**, 34, 011901	4.4	4
76	Development of multi-component generalized sphere function based gas-kinetic flux solver for simulation of compressible viscous reacting flows. *Computers and Fluids*, **2020**, 197, 104382	2.8	4
75	Efficient boundary condition-enforced immersed boundary method for incompressible flows with moving boundaries. *Journal of Computational Physics*, **2021**, 441, 110425	4.1	4
74	Polynomial-based Differential Quadrature (PDQ) **2000**, 25-68		4
73	Development of multicomponent lattice Boltzmann flux solver for simulation of compressible viscous reacting flows. *Physical Review E*, **2019**, 100, 033315	2.4	3
72	An effective lattice Boltzmann flux solver on arbitrarily unstructured meshes. *Modern Physics Letters B*, **2018**, 32, 1840012	1.6	3
71	Comparative study of 1D, 2D and 3D simplified gas kinetic schemes for simulation of inviscid compressible flows. *Applied Mathematical Modelling*, **2017**, 43, 85-109	4.5	3
70	A NEW IMMERSED BOUNDARY-LATTICE BOLTZMANN METHOD AND ITS APPLICATION TO INCOMPRESSIBLE FLOWS. *Modern Physics Letters B*, **2009**, 23, 261-264	1.6	3
69	Development of a local MQ-DQ-based stencil adaptive method and its application to solve incompressible Navier–Stokes equations. *International Journal for Numerical Methods in Fluids*, **2007**, 55, 367-386	1.9	3
68	Analyses and reconstruction of the lattice Boltzmann flux solver. *Journal of Computational Physics*, **2022**, 453, 110923	4.1	3
67	Fluid Micromixing Technology and Its Applications for Biological and Chemical Processes. *IFMBE Proceedings*, **2007**, 16-20	0.2	3
66	Propagation of weakly stretched premixed spherical spray flames in localized homogeneous and heterogeneous reactants. *Physics of Fluids*, **2020**, 32, 123302	4.4	3
65	A simplified lattice Boltzmann flux solver for multiphase flows with large density ratio. *International Journal for Numerical Methods in Fluids*, **2021**, 93, 1895-1912	1.9	3
64	Coupling improved discrete velocity method and G13-based gas kinetic flux solver: A hybrid method and its application for non-equilibrium flows. *Physics of Fluids*, **2021**, 33, 092007	4.4	3
63	Mixed convection between rotating sphere and concentric cubical enclosure. *Physics of Fluids*, **2021**, 33, 013605	4.4	3
62	Numerical investigation of adhesion dynamics of a deformable cell pair on an adhesive substrate in shear flow. *Physical Review E*, **2019**, 100, 033111	2.4	2

61	Three-dimensional lattice Boltzmann flux solver for simulation of fluid-solid conjugate heat transfer problems with curved boundary. *Physical Review E*, **2020**, 101, 053309	2.4	2
60	Extension of lattice Boltzmann flux solver for simulation of compressible multi-component flows. *Modern Physics Letters B*, **2018**, 32, 1840001	1.6	2
59	A stencil adaptive phase-field lattice Boltzmann method for two dimensional incompressible multiphase flows. *International Journal for Numerical Methods in Fluids*, **2013**, 72, 671-696	1.9	2
58	A hybrid FVM□IBM method for single and multi-fluid compressible flow problems. *International Journal for Numerical Methods in Fluids*, **2009**, 62, n/a-n/a	1.9	2
57	Simulation of Thermal Flow Problems via a Hybrid Immersed Boundary-Lattice Boltzmann Method. *Journal of Applied Mathematics*, **2012**, 2012, 1-11	1.1	2
56	Approximate mapping method for prediction of chaotic mixing in spatial-periodic microchannel. *Chemical Engineering Research and Design*, **2010**, 88, 1419-1426	5.5	2
55	Computation of the propagation characteristics of TE and TM modes in waveguides with the use of the generalized differential quadrature method. *Microwave and Optical Technology Letters*, **1997**, 14, 39-44	1.2	2
54	ACCEPTOR MODULATED DEFECT AND ELECTRONIC STRUCTURES IN FERROELECTRIC LEAD TITANATE: AN AB INITIO STUDY. *Functional Materials Letters*, **2008**, 01, 121-126	1.2	2
53	Catalytic Effect of Microcombustion in Microthermophotovoltaic System. *Nanoscale and Microscale Thermophysical Engineering*, **2006**, 10, 275-282	3.7	2
52	AN EFFICIENT METHOD FOR FINDING THE EXACT SOLUTION OF NONLINEAR EVOLUTION EQUATIONS. *Modern Physics Letters B*, **2005**, 19, 1703-1706	1.6	2
51	Application of GDQ Scheme to Solve Incompressible Navier-Stokes Equations in the Curvilinear Coordinate System **1994**,		2
50	Propagation of heterogeneous and homogeneous planar flames in fuel droplet mists. *International Journal of Multiphase Flow*, **2020**, 133, 103452	3.6	2
49	An efficient high-order least square-based finite difference-finite volume method for solution of compressible Navier-Stokes equations on unstructured grids. *Computers and Fluids*, **2021**, 222, 104926	2.8	2
48	Gas kinetic flux solver based high-order finite-volume method for simulation of two-dimensional compressible flows. *Physical Review E*, **2021**, 104, 015305	2.4	2
47	Parametric reduced order modeling-based discrete velocity method for simulation of steady rarefied flows. *Journal of Computational Physics*, **2021**, 430, 110037	4.1	2
46	A unified immersed boundary-lattice Boltzmann flux solver (UIB-LBFS) for simulation of flows past porous bodies. *Physics of Fluids*, **2021**, 33, 083603	4.4	2
45	Application of differential quadrature method to simulate natural convection in a concentric annulus **1999**, 30, 977		2
44	Fourier expansion-based differential quadrature and its application to Helmholtz eigenvalue problems **1997**, 13, 643		2

43	Isotherm-evolution-based interface tracking algorithm for modelling temperature-driven solid-liquid phase-change in multiphase flows. *International Journal of Thermal Sciences*, **2022**, 177, 107541	4.1	2
42	Development of axisymmetric lattice Boltzmann flux solver for complex multiphase flows. *Modern Physics Letters B*, **2018**, 32, 1840005	1.6	1
41	AN EFFICIENT LATTICE BOLTZMANN METHOD FOR THE APPLICATION ON NON-UNIFORM CARTESIAN MESH. *Modern Physics Letters B*, **2010**, 24, 1275-1278	1.6	1
40	NUMERICAL SIMULATION OF DAM BREAK BY ADAPTIVE STENCIL DIFFUSE INTERFACE METHOD. *Modern Physics Letters B*, **2009**, 23, 293-296	1.6	1
39	INTERACTION OF SHOCK WAVE WITH MULTI-FLUIDS INTERFACE USING QUADRILATERAL-BASED ADAPTIVE MESH. *International Journal of Modern Physics C*, **2012**, 23, 1250033	1.1	1
38	An Efficient Wavy Microchannel Heat Sink for Electronic Devices **2009**,		1
37	Numerical and Theoretical Study of Micro Tube Flow. *International Journal of Nonlinear Sciences and Numerical Simulation*, **2003**, 4,	1.8	1
36	Comparative Studies of Three Approaches for GDQ Computation of Incompressible Navier-Stokes Equations in Primitive Variable Form. *International Journal of Computational Fluid Dynamics*, **2004**, 18, 401-412	1.2	1
35	Micro Combustion Research for Micro Thermophotovoltaic Systems **2002**, 305		1
34	ADAPTIVE SOLUTION OF FLOW PAST TWO SIDE-BY-SIDE CIRCULAR CYLINDERS. *Modern Physics Letters B*, **2005**, 19, 1459-1462	1.6	1
33	A three-dimensional gas-kinetic flux solver for simulation of viscous flows with explicit formulations of conservative variables and numerical flux. *Advances in Aerodynamics*, **2020**, 2,	2.2	1
32	Variant of gas kinetic flux solver for flows beyond Navier-Stokes level.. *Physical Review E*, **2021**, 104, 055305	2.4	1
31	Multilayer perceptron neural network activated by adaptive Gaussian radial basis function and its application to predict lid-driven cavity flow. *Acta Mechanica Sinica/Lixue Xuebao*,1	2	1
30	An implicit lattice Boltzmann flux solver for simulation of compressible flows. *Computers and Mathematics With Applications*, **2022**, 107, 82-94	2.7	1
29	Efficient high-order radial basis-function-based differential quadrature-finite volume method for incompressible flows on unstructured grids. *Physical Review E*, **2021**, 104, 045312	2.4	1
28	A diffuse-interface immersed boundary method for simulation of compressible viscous flows with stationary and moving boundaries. *International Journal for Numerical Methods in Fluids*, **2020**, 92, 149-168	1.9	1
27	A high-order implicit least square-based finite difference-finite volume method for incompressible flows on unstructured grids. *Physics of Fluids*, **2021**, 33, 053601	4.4	1
26	Deterministic and stochastic bifurcations in two-dimensional electroconvective flows. *Journal of Fluid Mechanics*, **2021**, 922,	3.7	1

25	Numerical Simulation of Microflows by a DOM With Streaming and Collision Processes **2016**,		1
24	Phase-field-simplified lattice Boltzmann method for modeling solid-liquid phase change. *Physical Review E*, **2021**, 103, 023308	2.4	1
23	Ternary phase-field simplified multiphase lattice Boltzmann method and its application to compound droplet dynamics on solid surface in shear flow. *Physical Review Fluids*, **2021**, 6,	2.8	1
22	The effects of caudal fin's bending stiffness on a self-propelled carangiform swimmer. *Physics of Fluids*, **2022**, 34, 041901	4.4	1
21	Grad's distribution functions-based gas kinetic scheme for simulation of flows beyond Navier–Stokes level. *Physics of Fluids*, **2021**, 33, 122007	4.4	1
20	A HYBRID PHASE-FIELD BASED LATTICE BOLTZMANN METHOD FOR CONTACT LINE DYNAMICS. *International Journal of Modern Physics Conference Series*, **2012**, 19, 50-61	0.7	0
19	DEVELOPING LBM-BASED FLUX SOLVER AND ITS APPLICATIONS IN MULTI-DIMENSION SIMULATIONS. *International Journal of Modern Physics Conference Series*, **2012**, 19, 90-99	0.7	0
18	An efficient discrete velocity method with inner iteration for steady flows in all flow regimes. *Physics of Fluids*, **2022**, 34, 027110	4.4	0
17	On the evolution of fuel droplet evaporation zone and its interaction with flame front in ignition of spray flames. *Combustion Theory and Modelling*,1-28	1.5	0
16	Development of explicit formulations of G45-based gas kinetic scheme for simulation of continuum and rarefied flows.. *Physical Review E*, **2022**, 105, 045302	2.4	0
15	A diffuse interface IBM for compressible flows with Neumann boundary condition. *International Journal of Modern Physics B*, **2020**, 34, 2040070	1.1	
14	EVALUATION OF THE PERFORMANCE OF THE HYBRID LATTICE BOLTZMANN BASED NUMERICAL FLUX. *International Journal of Modern Physics Conference Series*, **2016**, 42, 1660152	0.7	
13	Preface to Special Topic: Papers Selected from the 7th International Symposium on Physics of Fluids, Guiyang, China, 2017. *Physics of Fluids*, **2018**, 30, 040801	4.4	
12	Circular Function-Based Gas-Kinetic Scheme for Simulation of Viscous Compressible Flows. *Lecture Notes in Computer Science*, **2018**, 37-47	0.9	
11	Quadrilateral Cell-Based Anisotropic Adaptive Solution for the Euler Equations. *Communications in Computational Physics*, **2011**, 9, 68-88	2.4	
10	SIMULATION OF INCOMPRESSIBLE VISCOUS FLOWS BY BOUNDARY CONDITION-IMPLEMENTED IMMERSED BOUNDARY METHOD. *Modern Physics Letters B*, **2009**, 23, 345-348	1.6	
9	RADIAL BASIS FUNCTION-BASED DIFFERENTIAL QUADRATURE (RBF-DQ) METHOD AND ITS APPLICATIONS. *Advances in Computational Fluid Dynamics*, **2011**, 299-329	4	
8	Least squares finite difference method for vibration analysis of plates **2007**, 118-144		

7	SIMULATION OF NATURAL CONVECTION BY TAYLOR SERIES EXPANSION- AND LEAST SQUARE-BASED LBM. *International Journal of Modern Physics B*, **2003**, 17, 165-168	1.1
6	Numerical and experimental observation of chaotic mixing in microfluidic mixer. *Journal of Visualization*, **2005**, 8, 291-291	1.6
5	A NEWTON-MULTIGRID METHOD FOR NUMERICAL SIMULATION OF SLIDER AIR BEARING. *Modern Physics Letters B*, **2005**, 19, 1647-1650	1.6
4	NUMERICAL SOLUTION OF TRAVELING WAVE DIELECTROPHORESIS USING A MESHLESS FINITE DIFFERENCE SCHEME. *Modern Physics Letters B*, **2005**, 19, 1739-1742	1.6
3	Oscillation-Free Adaptive Simulation of Compressible Two-Fluid Flows with Different Types of Equation of State. *ERCOFTAC Series*, **2012**, 103-117	0.1
2	Development of lattice Boltzmann flux solver for simulation of hypersonic flow past flight vehicles. *Journal of Physics: Conference Series*, **2018**, 1053, 012073	0.3
1	Simulation of interfacial waves of two-layer flows through phase field lattice Boltzmann method. *Modern Physics Letters B*, **2018**, 32, 1840056	1.6