Wei-Zhen Lu

List of Publications by Year in Descending Order

107 papers	3,221 citations	28 h-index	53 g-index
111 ext. papers	3,656 ext. citations	4.6 avg, IF	5.29 L-index

#	Paper	IF	Citations
107	Automated Layout Design Approach of Floor Tiles: Based on Building Information Modeling (BIM) via Parametric Design (PD) Platform. *Buildings*, **2022**, 12, 250	3.2	3
106	Optimization of return vent height for stratified air distribution system with impinging jet supply satisfying threshold of |PMV| < 0.5. *Journal of Cleaner Production*, **2022**, 359, 132033	10.3	0
105	Multi-objective optimization in floor tile planning: Coupling BIM and parametric design. *Automation in Construction*, **2022**, 140, 104384	9.6	0
104	Intelligent optimal design of floor tiles: A goal-oriented approach based on BIM and parametric design platform. *Journal of Cleaner Production*, **2021**, 299, 126754	10.3	6
103	An integrated approach to evaluate thermal comfort in air-conditioned large-space office. *Science and Technology for the Built Environment*, **2021**, 27, 436-450	1.8	2
102	RANS Simulation of Local Strong Sandstorms Induced by a Cold Pool with Vorticity. *Atmosphere*, **2020**, 11, 321	2.7	1
101	Exploring Proper Spacing Threshold of Non-Submerged Spur Dikes with Ipsilateral Layout. *Water (Switzerland)*, **2020**, 12, 172	3	4
100	Coupling CFD and building energy modelling to optimize the operation of a large open office space for occupant comfort. *Sustainable Cities and Society*, **2020**, 60, 102257	10.1	28
99	Comparison of three prediction strategies within PM2.5 and PM10 monitoring networks. *Atmospheric Pollution Research*, **2020**, 11, 590-597	4.5	6
98	Characterizing the variation of particles in varied sizes from a container truck in a port area. *Environmental Monitoring and Assessment*, **2020**, 192, 787	3.1	2
97	Evaluation of thermal environment by coupling CFD analysis and wireless-sensor measurements of a full-scale room with cooling system. *Sustainable Cities and Society*, **2019**, 45, 395-405	10.1	33
96	Impacts of traffic congestion on fuel rate, dissipation and particle emission in a single lane based on Nasch Model. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 503, 154-162	3.3	15
95	An environmental indicator: particulate characteristics on pedestrian pathway along integrated urban thoroughfare in Metropolis. *Stochastic Environmental Research and Risk Assessment*, **2018**, 32, 2527-2536	3.5	2
94	A new urban canopy parameterization scheme for wind environment simulations. *Indoor and Built Environment*, **2018**, 27, 402-422	1.8	1
93	Coupling Eulerian-Lagrangian method of air-particle two-phase flow with population balance equations to simulate the evolution of vehicle exhaust plume. *International Journal for Numerical Methods in Fluids*, **2018**, 88, 117-140	1.9	2
92	Investigation of exhaust gas dispersion in the near-wake region of a light-duty vehicle. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 775-783	3.5	
91	Traffic control oriented impact on the persistence of urban air pollutants: A causeway bay revelation during emergency period. *Transportation Research, Part D: Transport and Environment*, **2017**, 51, 304-313	6.4	9

90	Prevision of vehicle headway effect on urban traffic with a new car-following model. *Modern Physics Letters B*, **2017**, 31, 1750103	1.6	8
89	Multiscale multifractal properties between ground-level ozone and its precursors in rural area in Hong Kong. *Journal of Environmental Management*, **2017**, 196, 270-277	7.9	9
88	The reliability and availability evaluation of repairable district heating networks under changeable external conditions. *Applied Energy*, **2017**, 203, 686-695	10.7	42
87	A new car-following model with the consideration of incorporating timid and aggressive driving behaviors. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 442, 197-202	3.3	45
86	Multifractal property and long-range cross-correlation behavior of particulate matters at urban traffic intersection in Shanghai. *Stochastic Environmental Research and Risk Assessment*, **2016**, 30, 1515-1525	3.5	13
85	Revised lattice Boltzmann model for traffic flow with equilibrium traffic pressure. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 443, 22-31	3.3	7
84	Nonlinear analysis of a new car-following model accounting for the optimal velocity changes with memory. *Communications in Nonlinear Science and Numerical Simulation*, **2016**, 40, 197-205	3.7	60
83	Appropriate CFD Models for Simulating Flow around Spur Dike Group along Urban Riverways. *Water Resources Management*, **2016**, 30, 4559-4570	3.7	6
82	Dynamic characteristics of rotating pretwisted clamped-clamped beam under thermal stress. *Journal of Mechanical Science and Technology*, **2016**, 30, 4031-4042	1.6	8
81	Nonlinear analysis of a new car-following model accounting for the global average optimal velocity difference. *Modern Physics Letters B*, **2016**, 30, 1650327	1.6	5
80	Prediction of particulate matters at urban intersection by using multilayer perceptron model based on principal components. *Stochastic Environmental Research and Risk Assessment*, **2015**, 29, 2107-2114	3.5	16
79	A new lattice model with the consideration of the traffic interruption probability for two-lane traffic flow. *Nonlinear Dynamics*, **2015**, 81, 417-424	5	23
78	Multifractal nature of particulate matters (PMs) in Hong Kong urban air. *Science of the Total Environment*, **2015**, 532, 744-51	10.2	27
77	Long-range correlations in vehicular traffic flow studied in the framework of Kerner's three-phase theory based on rescaled range analysis. *Communications in Nonlinear Science and Numerical Simulation*, **2015**, 22, 285-296	3.7	16
76	Effect of Dead Load on Dynamic Characteristics of Rotating Timoshenko Beams. *Mathematical Problems in Engineering*, **2015**, 2015, 1-10	1.1	1
75	Impact of the traffic interruption probability of optimal current on traffic congestion in lattice model. *Physica A: Statistical Mechanics and Its Applications*, **2015**, 425, 27-33	3.3	27
74	Energy dissipation of traffic flow at an on-ramp. *Physica A: Statistical Mechanics and Its Applications*, **2014**, 398, 172-178	3.3	8
73	Detrended fluctuation analysis of particle number concentrations on roadsides in Hong Kong. *Building and Environment*, **2014**, 82, 580-587	6.5	24

72	Learning machines: Rationale and application in ground-level ozone prediction. *Applied Soft Computing Journal*, **2014**, 24, 135-141	7.5	16
71	Optimizing Operation Rules of Sluices in River Networks Based on Knowledge-driven and Data-driven Mechanism. *Water Resources Management*, **2014**, 28, 3455-3469	3.7	7
70	Prediction of particulate matter at street level using artificial neural networks coupling with chaotic particle swarm optimization algorithm. *Building and Environment*, **2014**, 78, 111-117	6.5	45
69	BihamMiddletonLevine model in consideration of cooperative willingness. *Chinese Physics B*, **2014**, 23, 058902	1.2	3
68	Impact of dissipation and dispersion terms on simulations of open-channel confluence flow using two-dimensional depth-averaged model. *Hydrological Processes*, **2014**, 28, 3230-3240	3.3	6
67	Numerical Simulation of Confluence Flow in Open Channel with Dynamic Meshes Techniques. *Advances in Mechanical Engineering*, **2013**, 5, 860431	1.2	34
66	Experimental study of near-wall turbulent characteristics in an open-channel with gravel bed using an acoustic Doppler velocimeter. *Experiments in Fluids*, **2012**, 52, 85-94	2.5	13
65	Urban aerosol particulates on Hong Kong roadsides: size distribution and concentration levels with time. *Stochastic Environmental Research and Risk Assessment*, **2012**, 26, 177-187	3.5	17
64	Spectral analysis of vehicle pollutants at traffic intersection in Hong Kong. *Stochastic Environmental Research and Risk Assessment*, **2012**, 26, 1053-1061	3.5	10
63	Decomposition of pollution contributors to urban ozone levels concerning regional and local scales. *Building and Environment*, **2012**, 49, 97-103	6.5	15
62	Experimental Study of the Effects of Roughness on the Flow Structure in a Gravel-Bed Channel Using Particle Image Velocimetry. *Journal of Hydrologic Engineering - ASCE*, **2011**, 16, 710-716	1.8	8
61	Assessing air quality in Hong Kong: A proposed, revised air pollution index (API). *Building and Environment*, **2011**, 46, 2562-2569	6.5	13
60	Effects of Bed Load Movement on Mean Flow Characteristics in Mobile Gravel Beds. *Water Resources Management*, **2011**, 25, 2781-2795	3.7	17
59	Effects of Turbulence Models on the Numerical Simulation of Flow in Open Channel Junction. *Mechanics of Advanced Materials and Structures*, **2011**, 18, 566-571	1.8	5
58	Performance assessment of air quality monitoring networks using principal component analysis and cluster analysis. *Building and Environment*, **2011**, 46, 577-583	6.5	64
57	Preface for Special Issue of Mechanics of Advanced Materials and Structures. *Mechanics of Advanced Materials and Structures*, **2011**, 18, 565-565	1.8	
56	An improved cellular automaton model considering the effect of traffic lights and driving behaviour. *Chinese Physics B*, **2011**, 20, 040514	1.2	22
55	Jam Formation of Traffic Flow in Harbor Tunnel. *Communications in Theoretical Physics*, **2011**, 56, 1140-1144	1.4	2

54	Dynamic characteristics and simulation of traffic flow with slope. *Chinese Physics B*, **2009**, 18, 2703-2708	1.2	7
53	Assessing the relative importance of surface ozone influential variables in regional-scale analysis. *Atmospheric Environment*, **2009**, 43, 3621-3629	5.3	9
52	Prediction of PM10 concentrations at urban traffic intersections using semi-empirical box modelling with instantaneous velocity and acceleration. *Atmospheric Environment*, **2009**, 43, 6336-6342	5.3	22
51	Lattice hydrodynamic model with bidirectional pedestrian flow. *Physica A: Statistical Mechanics and Its Applications*, **2009**, 388, 2895-2902	3.3	75
50	Microorganisms and particles in AHU systems: Measurement and analysis. *Building and Environment*, **2009**, 44, 694-698	6.5	25
49	Exploring jamming transitions and density waves in bidirectional pedestrian traffic. *European Physical Journal B*, **2009**, 69, 289-295	1.2	17
48	Experimental Study on Characteristics of Separation Zone in Confluence Zones in Rivers. *Journal of Hydrologic Engineering - ASCE*, **2009**, 14, 166-171	1.8	50
47	Ground-level ozone prediction by support vector machine approach with a cost-sensitive classification scheme. *Science of the Total Environment*, **2008**, 395, 109-16	10.2	51
46	Online prediction model based on support vector machine. *Neurocomputing*, **2008**, 71, 550-558	5.4	110
45	Investigation of respirable suspended particulate trend and relevant environmental factors in Hong Kong downtown areas. *Chemosphere*, **2008**, 71, 561-7	8.4	11
44	ON-LINE HEALTH MONITORING AND DAMAGE DETECTION OF STRUCTURES BASED ON THE WAVELET TRANSFORM. *International Journal of Structural Stability and Dynamics*, **2008**, 08, 367-387	1.9	13
43	A new model for determining neutral-plane position in shaft space of a building under fire situation. *Building and Environment*, **2008**, 43, 1101-1108	6.5	33
42	Analytical 3-D p-element for quadrilateral plates—Part 1: Thick isotropic plate structures. *Journal of Sound and Vibration*, **2007**, 303, 171-184	3.9	4
41	Role of ventilation in airborne transmission of infectious agents in the built environment - a multidisciplinary systematic review. *Indoor Air*, **2007**, 17, 2-18	5.4	585
40	Experimental study on flow behavior at open channel confluences. *Frontiers of Architecture and Civil Engineering in China*, **2007**, 1, 211-216		17
39	An investigation on spill plume development and natural filling in large full-scale atrium under retail shop fire. *International Journal of Heat and Mass Transfer*, **2007**, 50, 513-529	4.9	34
38	Using Time-Delay Neural Network Combined with Genetic Algorithms to Predict Runoff Level of Linshan Watershed, Sichuan, China. *Journal of Hydrologic Engineering - ASCE*, **2007**, 12, 231-236	1.8	12
37	CFD analysis of ventilation effectiveness in a public transport interchange. *Building and Environment*, **2006**, 41, 254-261	6.5	25

36	Ground-level ozone prediction using multilayer perceptron trained with an innovative hybrid approach. *Ecological Modelling*, **2006**, 198, 332-340	3	11
35	Forecasting of ozone level in time series using MLP model with a novel hybrid training algorithm. *Atmospheric Environment*, **2006**, 40, 913-924	5.3	33
34	Evolving trend and self-similarity of ozone pollution in central Hong Kong ambient during 1984-2002. *Science of the Total Environment*, **2006**, 357, 160-8	10.2	16
33	Forecasting Ozone Levels and Analyzing Their Dynamics by a Bayesian Multilayer Perceptron Model for Two Air-Monitoring Sites in Hong Kong. *Human and Ecological Risk Assessment (HERA)*, **2006**, 12, 313-327	4.9	6
32	Interval estimation of urban ozone level and selection of influential factors by employing automatic relevance determination model. *Chemosphere*, **2006**, 62, 1600-11	8.4	11
31	Seasonal variation of air pollution index: Hong Kong case study. *Chemosphere*, **2006**, 63, 1261-72	8.4	63
30	Potential assessment of the "support vector machine" method in forecasting ambient air pollutant trends. *Chemosphere*, **2005**, 59, 693-701	8.4	142
29	A preliminary parametric study on performance of SARS virus cleaner using CFD simulation. *International Journal for Numerical Methods in Fluids*, **2005**, 47, 1137-1146	1.9	2
28	Interaction patterns of major air pollutants in Hong Kong territory. *Science of the Total Environment* , **2004**, 324, 247-59	10.2	17
27	A numerical analysis of free-surface flow in curved open channel with velocity□pressure-free-surface correction. *Computational Mechanics*, **2004**, 33, 215-224	4	14
26	Potential assessment of a neural network model with PCA/RBF approach for forecasting pollutant trends in Mong Kok urban air, Hong Kong. *Environmental Research*, **2004**, 96, 79-87	7.9	55
25	An Improved Neural-Network-Based Calibration Method for Aerodynamic Pressure Probes. *Journal of Fluids Engineering, Transactions of the ASME*, **2003**, 125, 113-120	2.1	17
24	Using improved neural network model to analyze RSP, NOx and NO2 levels in urban air in Mong Kok, Hong Kong. *Environmental Monitoring and Assessment*, **2003**, 87, 235-54	3.1	39
23	Application of evolutionary neural network method in predicting pollutant levels in downtown area of Hong Kong. *Neurocomputing*, **2003**, 51, 387-400	5.4	78
22	Determination of the spread parameter in the Gaussian kernel for classification and regression. *Neurocomputing*, **2003**, 55, 643-663	5.4	268
21	A study of ozone variation trend within area of affecting human health in Hong Kong. *Chemosphere*, **2003**, 52, 1405-10	8.4	36
20	A preliminary study on potential of developing shower/laundry wastewater reclamation and reuse system. *Chemosphere*, **2003**, 52, 1451-9	8.4	44
19	Prediction of maximum daily ozone level using combined neural network and statistical characteristics. *Environment International*, **2003**, 29, 555-62	12.9	62

18	Three improved neural network models for air quality forecasting. *Engineering Computations*, **2003**, 20, 192-210	1.4	67
17	A numerical study of external smoke spread in designated refuge floor. *Building and Environment*, **2002**, 37, 257-268	6.5	14
16	Analysis of pollutant levels in central Hong Kong applying neural network method with particle swarm optimization. *Environmental Monitoring and Assessment*, **2002**, 79, 217-30	3.1	53
15	NUMERICAL INVESTIGATION OF CONVECTION HEAT TRANSFER IN A HEATED ROOM. *Numerical Heat Transfer; Part A: Applications*, **2002**, 42, 233-251	2.3	12
14	A CFD Study of Buoyancy Effects on Smoke Spread in a Refuge Floor of a High-rise Building. *Journal of Fire Sciences*, **2002**, 20, 439-463	1.5	12
13	Impact of Floor Planning on Airflow Patterns in Designated Refuge Floor in High-Rise Building. *Journal of Architectural Engineering*, **2002**, 8, 108-115	1.5	3
12	Prediction of Pollutant Levels in Causeway Bay Area of Hong Kong Using an Improved Neural Network Model. *Journal of Environmental Engineering, ASCE*, **2002**, 128, 1146-1157	2	27
11	A preliminary study of ozone trend and its impact on environment in Hong Kong. *Environment International*, **2002**, 28, 503-12	12.9	25
10	An Investigation of the Impact of Floor Setting on Airflow and Smoke Extraction in Designated Refuge Floor. *International Journal of Computational Fluid Dynamics*, **2001**, 14, 327-337	1.2	11
9	A preliminary investigation of airflow field in designated refuge floor. *Building and Environment*, **2001**, 36, 219-230	6.5	25
8	A CFD Study of Air Movement in Designated Refuge Floor. *International Journal of Computational Fluid Dynamics*, **2001**, 15, 169-176	1.2	8
7	A NUMERICAL STUDY OF THE EFFECT OF WINDOW CONFIGURATION ON THE EXTERNAL HEAT AND SMOKE SPREAD IN BUILDING FIRE. *Numerical Heat Transfer; Part A: Applications*, **2001**, 40, 821-839	2.3	4
6	An empirical comparison of three novel genetic algorithms. *Engineering Computations*, **2000**, 17, 981-1002	1.4	14
5	Airborne particles in a ventilated room: Prediction and measurement. *Building Services Engineering Research and Technology*, **1998**, 19, 73-77	2.3	2
4	Prediction of airflow and temperature field in a room with convective heat source. *Building and Environment*, **1997**, 32, 541-550	6.5	24
3	Numerical analysis of indoor aerosol particle deposition and distribution in two-zone ventilation system. *Building and Environment*, **1996**, 31, 41-50	6.5	48
2	Modelling and measurement of airflow and aerosol particle distribution in a ventilated two-zone chamber. *Building and Environment*, **1996**, 31, 417-423	6.5	96
1	Air pollutant parameter forecasting using support vector machines		6