

# Wei-Zhen Lu

## List of Publications by Citations

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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	Role of ventilation in airborne transmission of infectious agents in the built environment - a multidisciplinary systematic review. <i>Indoor Air</i> , <b>2007</b> , 17, 2-18	5.4	585
106	Determination of the spread parameter in the Gaussian kernel for classification and regression. <i>Neurocomputing</i> , <b>2003</b> , 55, 643-663	5.4	268
105	Potential assessment of the "support vector machine" method in forecasting ambient air pollutant trends. <i>Chemosphere</i> , <b>2005</b> , 59, 693-701	8.4	142
104	Online prediction model based on support vector machine. <i>Neurocomputing</i> , <b>2008</b> , 71, 550-558	5.4	110
103	Modelling and measurement of airflow and aerosol particle distribution in a ventilated two-zone chamber. <i>Building and Environment</i> , <b>1996</b> , 31, 417-423	6.5	96
102	Application of evolutionary neural network method in predicting pollutant levels in downtown area of Hong Kong. <i>Neurocomputing</i> , <b>2003</b> , 51, 387-400	5.4	78
101	Lattice hydrodynamic model with bidirectional pedestrian flow. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2009</b> , 388, 2895-2902	3.3	75
100	Three improved neural network models for air quality forecasting. <i>Engineering Computations</i> , <b>2003</b> , 20, 192-210	1.4	67
99	Performance assessment of air quality monitoring networks using principal component analysis and cluster analysis. <i>Building and Environment</i> , <b>2011</b> , 46, 577-583	6.5	64
98	Seasonal variation of air pollution index: Hong Kong case study. <i>Chemosphere</i> , <b>2006</b> , 63, 1261-72	8.4	63
97	Prediction of maximum daily ozone level using combined neural network and statistical characteristics. <i>Environment International</i> , <b>2003</b> , 29, 555-62	12.9	62
96	Nonlinear analysis of a new car-following model accounting for the optimal velocity changes with memory. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2016</b> , 40, 197-205	3.7	60
95	Potential assessment of a neural network model with PCA/RBF approach for forecasting pollutant trends in Mong Kok urban air, Hong Kong. <i>Environmental Research</i> , <b>2004</b> , 96, 79-87	7.9	55
94	Analysis of pollutant levels in central Hong Kong applying neural network method with particle swarm optimization. <i>Environmental Monitoring and Assessment</i> , <b>2002</b> , 79, 217-30	3.1	53
93	Ground-level ozone prediction by support vector machine approach with a cost-sensitive classification scheme. <i>Science of the Total Environment</i> , <b>2008</b> , 395, 109-16	10.2	51
92	Experimental Study on Characteristics of Separation Zone in Confluence Zones in Rivers. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2009</b> , 14, 166-171	1.8	50
91	Numerical analysis of indoor aerosol particle deposition and distribution in two-zone ventilation system. <i>Building and Environment</i> , <b>1996</b> , 31, 41-50	6.5	48

90	A new car-following model with the consideration of incorporating timid and aggressive driving behaviors. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2016</b> , 442, 197-202	3.3	45
89	Prediction of particulate matter at street level using artificial neural networks coupling with chaotic particle swarm optimization algorithm. <i>Building and Environment</i> , <b>2014</b> , 78, 111-117	6.5	45
88	A preliminary study on potential of developing shower/laundry wastewater reclamation and reuse system. <i>Chemosphere</i> , <b>2003</b> , 52, 1451-9	8.4	44
87	The reliability and availability evaluation of repairable district heating networks under changeable external conditions. <i>Applied Energy</i> , <b>2017</b> , 203, 686-695	10.7	42
86	Using improved neural network model to analyze RSP, NOx and NO2 levels in urban air in Mong Kok, Hong Kong. <i>Environmental Monitoring and Assessment</i> , <b>2003</b> , 87, 235-54	3.1	39
85	A study of ozone variation trend within area of affecting human health in Hong Kong. <i>Chemosphere</i> , <b>2003</b> , 52, 1405-10	8.4	36
84	Numerical Simulation of Confluence Flow in Open Channel with Dynamic Meshes Techniques. <i>Advances in Mechanical Engineering</i> , <b>2013</b> , 5, 860431	1.2	34
83	An investigation on spill plume development and natural filling in large full-scale atrium under retail shop fire. <i>International Journal of Heat and Mass Transfer</i> , <b>2007</b> , 50, 513-529	4.9	34
82	A new model for determining neutral-plane position in shaft space of a building under fire situation. <i>Building and Environment</i> , <b>2008</b> , 43, 1101-1108	6.5	33
81	Forecasting of ozone level in time series using MLP model with a novel hybrid training algorithm. <i>Atmospheric Environment</i> , <b>2006</b> , 40, 913-924	5.3	33
80	Evaluation of thermal environment by coupling CFD analysis and wireless-sensor measurements of a full-scale room with cooling system. <i>Sustainable Cities and Society</i> , <b>2019</b> , 45, 395-405	10.1	33
79	Coupling CFD and building energy modelling to optimize the operation of a large open office space for occupant comfort. <i>Sustainable Cities and Society</i> , <b>2020</b> , 60, 102257	10.1	28
78	Multifractal nature of particulate matters (PMs) in Hong Kong urban air. <i>Science of the Total Environment</i> , <b>2015</b> , 532, 744-51	10.2	27
77	Impact of the traffic interruption probability of optimal current on traffic congestion in lattice model. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2015</b> , 425, 27-33	3.3	27
76	Prediction of Pollutant Levels in Causeway Bay Area of Hong Kong Using an Improved Neural Network Model. <i>Journal of Environmental Engineering, ASCE</i> , <b>2002</b> , 128, 1146-1157	2	27
75	Microorganisms and particles in AHU systems: Measurement and analysis. <i>Building and Environment</i> , <b>2009</b> , 44, 694-698	6.5	25
74	CFD analysis of ventilation effectiveness in a public transport interchange. <i>Building and Environment</i> , <b>2006</b> , 41, 254-261	6.5	25
73	A preliminary investigation of airflow field in designated refuge floor. <i>Building and Environment</i> , <b>2001</b> , 36, 219-230	6.5	25

72	A preliminary study of ozone trend and its impact on environment in Hong Kong. <i>Environment International</i> , <b>2002</b> , 28, 503-12	12.9	25
71	Detrended fluctuation analysis of particle number concentrations on roadsides in Hong Kong. <i>Building and Environment</i> , <b>2014</b> , 82, 580-587	6.5	24
70	Prediction of airflow and temperature field in a room with convective heat source. <i>Building and Environment</i> , <b>1997</b> , 32, 541-550	6.5	24
69	A new lattice model with the consideration of the traffic interruption probability for two-lane traffic flow. <i>Nonlinear Dynamics</i> , <b>2015</b> , 81, 417-424	5	23
68	Prediction of PM10 concentrations at urban traffic intersections using semi-empirical box modelling with instantaneous velocity and acceleration. <i>Atmospheric Environment</i> , <b>2009</b> , 43, 6336-6342	5.3	22
67	An improved cellular automaton model considering the effect of traffic lights and driving behaviour. <i>Chinese Physics B</i> , <b>2011</b> , 20, 040514	1.2	22
66	Urban aerosol particulates on Hong Kong roadsides: size distribution and concentration levels with time. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2012</b> , 26, 177-187	3.5	17
65	Effects of Bed Load Movement on Mean Flow Characteristics in Mobile Gravel Beds. <i>Water Resources Management</i> , <b>2011</b> , 25, 2781-2795	3.7	17
64	Exploring jamming transitions and density waves in bidirectional pedestrian traffic. <i>European Physical Journal B</i> , <b>2009</b> , 69, 289-295	1.2	17
63	Experimental study on flow behavior at open channel confluences. <i>Frontiers of Architecture and Civil Engineering in China</i> , <b>2007</b> , 1, 211-216		17
62	An Improved Neural-Network-Based Calibration Method for Aerodynamic Pressure Probes. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2003</b> , 125, 113-120	2.1	17
61	Interaction patterns of major air pollutants in Hong Kong territory. <i>Science of the Total Environment</i> , <b>2004</b> , 324, 247-59	10.2	17
60	Prediction of particulate matters at urban intersection by using multilayer perceptron model based on principal components. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2015</b> , 29, 2107-2114	3.5	16
59	Long-range correlations in vehicular traffic flow studied in the framework of Kerner's three-phase theory based on rescaled range analysis. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2015</b> , 22, 285-296	3.7	16
58	Learning machines: Rationale and application in ground-level ozone prediction. <i>Applied Soft Computing Journal</i> , <b>2014</b> , 24, 135-141	7.5	16
57	Evolving trend and self-similarity of ozone pollution in central Hong Kong ambient during 1984-2002. <i>Science of the Total Environment</i> , <b>2006</b> , 357, 160-8	10.2	16
56	Impacts of traffic congestion on fuel rate, dissipation and particle emission in a single lane based on Nasch Model. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2018</b> , 503, 154-162	3.3	15
55	Decomposition of pollution contributors to urban ozone levels concerning regional and local scales. <i>Building and Environment</i> , <b>2012</b> , 49, 97-103	6.5	15

54	A numerical analysis of free-surface flow in curved open channel with velocity-pressure-free-surface correction. <i>Computational Mechanics</i> , <b>2004</b> , 33, 215-224	4	14
53	A numerical study of external smoke spread in designated refuge floor. <i>Building and Environment</i> , <b>2002</b> , 37, 257-268	6.5	14
52	An empirical comparison of three novel genetic algorithms. <i>Engineering Computations</i> , <b>2000</b> , 17, 981-1002	2.4	14
51	Multifractal property and long-range cross-correlation behavior of particulate matters at urban traffic intersection in Shanghai. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2016</b> , 30, 1515-1525	3.5	13
50	Experimental study of near-wall turbulent characteristics in an open-channel with gravel bed using an acoustic Doppler velocimeter. <i>Experiments in Fluids</i> , <b>2012</b> , 52, 85-94	2.5	13
49	Assessing air quality in Hong Kong: A proposed, revised air pollution index (API). <i>Building and Environment</i> , <b>2011</b> , 46, 2562-2569	6.5	13
48	ON-LINE HEALTH MONITORING AND DAMAGE DETECTION OF STRUCTURES BASED ON THE WAVELET TRANSFORM. <i>International Journal of Structural Stability and Dynamics</i> , <b>2008</b> , 08, 367-387	1.9	13
47	Using Time-Delay Neural Network Combined with Genetic Algorithms to Predict Runoff Level of Linshan Watershed, Sichuan, China. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2007</b> , 12, 231-236	1.8	12
46	NUMERICAL INVESTIGATION OF CONVECTION HEAT TRANSFER IN A HEATED ROOM. <i>Numerical Heat Transfer; Part A: Applications</i> , <b>2002</b> , 42, 233-251	2.3	12
45	A CFD Study of Buoyancy Effects on Smoke Spread in a Refuge Floor of a High-rise Building. <i>Journal of Fire Sciences</i> , <b>2002</b> , 20, 439-463	1.5	12
44	Investigation of respirable suspended particulate trend and relevant environmental factors in Hong Kong downtown areas. <i>Chemosphere</i> , <b>2008</b> , 71, 561-7	8.4	11
43	Ground-level ozone prediction using multilayer perceptron trained with an innovative hybrid approach. <i>Ecological Modelling</i> , <b>2006</b> , 198, 332-340	3	11
42	Interval estimation of urban ozone level and selection of influential factors by employing automatic relevance determination model. <i>Chemosphere</i> , <b>2006</b> , 62, 1600-11	8.4	11
41	An Investigation of the Impact of Floor Setting on Airflow and Smoke Extraction in Designated Refuge Floor. <i>International Journal of Computational Fluid Dynamics</i> , <b>2001</b> , 14, 327-337	1.2	11
40	Spectral analysis of vehicle pollutants at traffic intersection in Hong Kong. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2012</b> , 26, 1053-1061	3.5	10
39	Traffic control oriented impact on the persistence of urban air pollutants: A causeway bay revelation during emergency period. <i>Transportation Research, Part D: Transport and Environment</i> , <b>2017</b> , 51, 304-313	6.4	9
38	Multiscale multifractal properties between ground-level ozone and its precursors in rural area in Hong Kong. <i>Journal of Environmental Management</i> , <b>2017</b> , 196, 270-277	7.9	9
37	Assessing the relative importance of surface ozone influential variables in regional-scale analysis. <i>Atmospheric Environment</i> , <b>2009</b> , 43, 3621-3629	5.3	9

36	Prevision of vehicle headway effect on urban traffic with a new car-following model. <i>Modern Physics Letters B</i> , <b>2017</b> , 31, 1750103	1.6	8
35	Energy dissipation of traffic flow at an on-ramp. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2014</b> , 398, 172-178	3.3	8
34	Experimental Study of the Effects of Roughness on the Flow Structure in a Gravel-Bed Channel Using Particle Image Velocimetry. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2011</b> , 16, 710-716	1.8	8
33	A CFD Study of Air Movement in Designated Refuge Floor. <i>International Journal of Computational Fluid Dynamics</i> , <b>2001</b> , 15, 169-176	1.2	8
32	Dynamic characteristics of rotating pretwisted clamped-clamped beam under thermal stress. <i>Journal of Mechanical Science and Technology</i> , <b>2016</b> , 30, 4031-4042	1.6	8
31	Revised lattice Boltzmann model for traffic flow with equilibrium traffic pressure. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2016</b> , 443, 22-31	3.3	7
30	Optimizing Operation Rules of Sluices in River Networks Based on Knowledge-driven and Data-driven Mechanism. <i>Water Resources Management</i> , <b>2014</b> , 28, 3455-3469	3.7	7
29	Dynamic characteristics and simulation of traffic flow with slope. <i>Chinese Physics B</i> , <b>2009</b> , 18, 2703-2708	1.2	7
28	Impact of dissipation and dispersion terms on simulations of open-channel confluence flow using two-dimensional depth-averaged model. <i>Hydrological Processes</i> , <b>2014</b> , 28, 3230-3240	3.3	6
27	Forecasting Ozone Levels and Analyzing Their Dynamics by a Bayesian Multilayer Perceptron Model for Two Air-Monitoring Sites in Hong Kong. <i>Human and Ecological Risk Assessment (HERA)</i> , <b>2006</b> , 12, 313-327	4.0	6
26	Air pollutant parameter forecasting using support vector machines		6
25	Comparison of three prediction strategies within PM2.5 and PM10 monitoring networks. <i>Atmospheric Pollution Research</i> , <b>2020</b> , 11, 590-597	4.5	6
24	Intelligent optimal design of floor tiles: A goal-oriented approach based on BIM and parametric design platform. <i>Journal of Cleaner Production</i> , <b>2021</b> , 299, 126754	10.3	6
23	Appropriate CFD Models for Simulating Flow around Spur Dike Group along Urban Riverways. <i>Water Resources Management</i> , <b>2016</b> , 30, 4559-4570	3.7	6
22	Effects of Turbulence Models on the Numerical Simulation of Flow in Open Channel Junction. <i>Mechanics of Advanced Materials and Structures</i> , <b>2011</b> , 18, 566-571	1.8	5
21	Nonlinear analysis of a new car-following model accounting for the global average optimal velocity difference. <i>Modern Physics Letters B</i> , <b>2016</b> , 30, 1650327	1.6	5
20	Analytical 3-D p-element for quadrilateral platesPart 1: Thick isotropic plate structures. <i>Journal of Sound and Vibration</i> , <b>2007</b> , 303, 171-184	3.9	4
19	A NUMERICAL STUDY OF THE EFFECT OF WINDOW CONFIGURATION ON THE EXTERNAL HEAT AND SMOKE SPREAD IN BUILDING FIRE. <i>Numerical Heat Transfer; Part A: Applications</i> , <b>2001</b> , 40, 821-839	2.3	4

18	Exploring Proper Spacing Threshold of Non-Submerged Spur Dikes with Ipsilateral Layout. <i>Water (Switzerland)</i> , <b>2020</b> , 12, 172	3	4
17	BihamMiddletonDevine model in consideration of cooperative willingness. <i>Chinese Physics B</i> , <b>2014</b> , 23, 058902	1.2	3
16	Impact of Floor Planning on Airflow Patterns in Designated Refuge Floor in High-Rise Building. <i>Journal of Architectural Engineering</i> , <b>2002</b> , 8, 108-115	1.5	3
15	Automated Layout Design Approach of Floor Tiles: Based on Building Information Modeling (BIM) via Parametric Design (PD) Platform. <i>Buildings</i> , <b>2022</b> , 12, 250	3.2	3
14	An environmental indicator: particulate characteristics on pedestrian pathway along integrated urban thoroughfare in Metropolis. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2018</b> , 32, 2527-2536 <sup>2</sup>	3.5	2
13	Jam Formation of Traffic Flow in Harbor Tunnel. <i>Communications in Theoretical Physics</i> , <b>2011</b> , 56, 1140-1144	1.4	2
12	A preliminary parametric study on performance of SARS virus cleaner using CFD simulation. <i>International Journal for Numerical Methods in Fluids</i> , <b>2005</b> , 47, 1137-1146	1.9	2
11	Airborne particles in a ventilated room: Prediction and measurement. <i>Building Services Engineering Research and Technology</i> , <b>1998</b> , 19, 73-77	2.3	2
10	Characterizing the variation of particles in varied sizes from a container truck in a port area. <i>Environmental Monitoring and Assessment</i> , <b>2020</b> , 192, 787	3.1	2
9	An integrated approach to evaluate thermal comfort in air-conditioned large-space office. <i>Science and Technology for the Built Environment</i> , <b>2021</b> , 27, 436-450	1.8	2
8	Coupling Eulerian-Lagrangian method of air-particle two-phase flow with population balance equations to simulate the evolution of vehicle exhaust plume. <i>International Journal for Numerical Methods in Fluids</i> , <b>2018</b> , 88, 117-140	1.9	2
7	RANS Simulation of Local Strong Sandstorms Induced by a Cold Pool with Vorticity. <i>Atmosphere</i> , <b>2020</b> , 11, 321	2.7	1
6	Effect of Dead Load on Dynamic Characteristics of Rotating Timoshenko Beams. <i>Mathematical Problems in Engineering</i> , <b>2015</b> , 2015, 1-10	1.1	1
5	A new urban canopy parameterization scheme for wind environment simulations. <i>Indoor and Built Environment</i> , <b>2018</b> , 27, 402-422	1.8	1
4	Optimization of return vent height for stratified air distribution system with impinging jet supply satisfying threshold of  PMV  < 0.5. <i>Journal of Cleaner Production</i> , <b>2022</b> , 359, 132033	10.3	0
3	Multi-objective optimization in floor tile planning: Coupling BIM and parametric design. <i>Automation in Construction</i> , <b>2022</b> , 140, 104384	9.6	0
2	Investigation of exhaust gas dispersion in the near-wake region of a light-duty vehicle. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2017</b> , 31, 775-783	3.5	0
1	Preface for Special Issue of Mechanics of Advanced Materials and Structures. <i>Mechanics of Advanced Materials and Structures</i> , <b>2011</b> , 18, 565-565	1.8	0

