Wei Liu

List of Publications by Year
in descending order

52	1,650	257357	302012
papers	citations	24 h-index	39 g-index

53	53	53	811
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparing calculation methods of state transfer matrix in Markov chain models for indoor contaminant transport. Building and Environment, 2022, 207, 108515.	3.0	7
2	Performance of fast fluid dynamics with a semi-Lagrangian scheme and an implicit upwind scheme in simulating indoor/outdoor airflow. Building and Environment, 2022, 207, 108477.	3.0	9
3	Evaluation and comparison of various fast fluid dynamics modeling methods for predicting airflow around buildings. Building Simulation, 2022, 15, 1083-1095.	3.0	11
4	Evaluation of fast fluid dynamics with different turbulence models for predicting outdoor airflow and pollutant dispersion. Sustainable Cities and Society, 2022, 77, 103583.	5.1	24
5	Inverse modeling of thermal boundary conditions in commercial aircrafts based on Green's function and regularization method. Building and Environment, 2022, 217, 109062.	3.0	3
6	A semi-empirical mesh strategy for CFD simulation of indoor airflow. Indoor and Built Environment, 2022, 31, 2240-2256.	1.5	4
7	Transmission and exposure of kitchen particles: A case study in an apartment. Indoor and Built Environment, 2021, 30, 1503-1515.	1.5	3
8	A building energy consumption prediction model based on rough set theory and deep learning algorithms. Energy and Buildings, 2021, 240, 110886.	3.1	86
9	Influence of Thermal Environment on Attendance and Adaptive Behaviors in Outdoor Spaces: A Study in a Cold-Climate University Campus. International Journal of Environmental Research and Public Health, 2021, 18, 6139.	1.2	6
10	Deep learning to replace, improve, or aid CFD analysis in built environment applications: A review. Building and Environment, 2021, 206, 108315.	3.0	75
11	Modeling transient particle transport in transient indoor airflow by fast fluid dynamics with the Markov chain method. Building and Environment, 2020, 186, 107323.	3.0	18
12	Usage strategy of phase change materials in plastic greenhouses, in hot summer and cold winter climate. Applied Energy, 2020, 277, 115416.	5.1	25
13	Applications of Local Climate Zone Classification Scheme to Improve Urban Sustainability: A Bibliometric Review. Sustainability, 2020, 12, 8083.	1.6	25
14	A comprehensive review of thermal comfort studies in urban open spaces. Science of the Total Environment, 2020, 742, 140092.	3.9	128
15	A machine learning approach to predict outdoor thermal comfort using local skin temperatures. Sustainable Cities and Society, 2020, 59, 102216.	5.1	48
16	A comprehensive evaluation method for indoor air quality of buildings based on rough sets and a wavelet neural network. Building and Environment, 2019, 162, 106296.	3.0	41
17	Integration of fast fluid dynamics and Markov chain model for predicting transient particle transport in buildings. E3S Web of Conferences, 2019, 111, 04030.	0.2	1
18	Development of an integrated approach for the inverse design of built environment by a fast fluid dynamics-based generic algorithm. Building and Environment, 2019, 160, 106205.	3.0	12

#	Article	IF	Citations
19	Modeling transient particle transport by fast fluid dynamics with the Markov chain method. Building Simulation, 2019, 12, 881-889.	3.0	21
20	Integrated inverse design of ventilation for an aircraft cabin. E3S Web of Conferences, 2019, 85, 05006.	0.2	0
21	Inverse design of aircraft cabin ventilation by integrating three methods. Building and Environment, 2019, 150, 33-43.	3.0	14
22	A simple method for differentiating direct and indirect exposure to exhaled contaminants in mechanically ventilated rooms. Building Simulation, 2018, 11, 1039-1051.	3.0	14
23	Development of adaptive coarse grid generation methods for fast fluid dynamics in simulating indoor airflow. Journal of Building Performance Simulation, 2018, 11, 470-484.	1.0	17
24	Optimal design of an indoor environment by the CFD-based adjoint method with area-constrained topology and cluster analysis. Building and Environment, 2018, 138, 171-180.	3.0	27
25	A novel method for measuring air infiltration rate in buildings. Energy and Buildings, 2018, 168, 309-318.	3.1	21
26	An ordered probability model for predicting outdoor thermal comfort. Energy and Buildings, 2018, 168, 261-271.	3.1	21
27	Numerical modeling of particle deposition in the environmental control systems of commercial airliners on ground. Building Simulation, 2017, 10, 265-275.	3.0	9
28	In-flight monitoring of particle deposition in the environmental control systems of commercial airliners in China. Atmospheric Environment, 2017, 154, 118-128.	1.9	21
29	Inverse design of an indoor environment using a CFD-based adjoint method with the adaptive step size for adjusting the design parameters. Numerical Heat Transfer; Part A: Applications, 2017, 71, 707-720.	1.2	17
30	Development of a fast fluid dynamics-based adjoint method for the inverse design of indoor environments. Journal of Building Performance Simulation, 2017, 10, 326-343.	1.0	45
31	Strategy for Studying Ventilation Performance in Factories. Aerosol and Air Quality Research, 2016, 16, 442-452.	0.9	40
32	Experimental and numerical study of airflow distribution in an aircraft cabin mock-up with a gasper on. Journal of Building Performance Simulation, 2016, 9, 555-566.	1.0	45
33	New semi-Lagrangian-based PISO method for fast and accurate indoor environment modeling. Building and Environment, 2016, 105, 236-244.	3.0	21
34	Predicting airflow distribution and contaminant transport in aircraft cabins with a simplified gasper model. Journal of Building Performance Simulation, 2016, 9, 699-708.	1.0	14
35	Experimental study of particle deposition in the environmental control systems of commercial airliners. Building and Environment, 2016, 96, 62-71.	3.0	22
36	Implementation of a fast fluid dynamics model in OpenFOAM for simulating indoor airflow. Numerical Heat Transfer; Part A: Applications, 2016, 69, 748-762.	1.2	44

#	Article	IF	Citations
37	Optimization of air supply location, size, and parameters in enclosed environments using a computational fluid dynamics-based adjoint method. Journal of Building Performance Simulation, 2016, 9, 149-161.	1.0	27
38	Experimental study on characteristics of the jet flow from an aircraft gasper. Building and Environment, 2015, 93, 278-284.	3.0	23
39	Inverse design of the thermal environment in an airliner cabin by use of the CFD-based adjoint method. Energy and Buildings, 2015, 104, 147-155.	3.1	46
40	Accelerating the Lagrangian Method for Modeling Transient Particle Transport in Indoor Environments. Aerosol Science and Technology, 2015, 49, 351-361.	1.5	33
41	Mesh Type and Number for the CFD Simulations of Air Distribution in an Aircraft Cabin. Numerical Heat Transfer, Part B: Fundamentals, 2015, 67, 489-506.	0.6	32
42	State-of-the-art methods for inverse design of an enclosed environment. Building and Environment, 2015, 91, 91-100.	3.0	40
43	A Markov chain model for predicting transient particle transport in enclosed environments. Building and Environment, 2015, 90, 30-36.	3.0	68
44	Comparing the Markov Chain Model with the Eulerian and Lagrangian Models for Indoor Transient Particle Transport Simulations. Aerosol Science and Technology, 2015, 49, 857-871.	1.5	50
45	Simulating buoyancy-driven airflow in buildings by coarse-grid fast fluid dynamics. Building and Environment, 2015, 85, 144-152.	3.0	27
46	Optimal air distribution design in enclosed spaces using an adjoint method. Inverse Problems in Science and Engineering, 2015, 23, 760-779.	1.2	31
47	Accelerating fast fluid dynamics with a coarse-grid projection scheme. HVAC and R Research, 2014, 20, 932-943.	0.9	18
48	Evaluation of various categories of turbulence models for predicting air distribution in an airliner cabin. Building and Environment, 2013, 65, 118-131.	3.0	85
49	A hybrid model for investigating transient particle transport in enclosed environments. Building and Environment, 2013, 62, 45-54.	3.0	47
50	Current studies on air distributions in commercial airliner cabins. Theoretical and Applied Mechanics Letters, 2013, 3, 062001.	1.3	7
51	State-of-the-art methods for studying air distributions in commercial airliner cabins. Building and Environment, 2012, 47, 5-12.	3.0	81
52	Accurate and high-resolution boundary conditions and flow fields in the first-class cabin of an MD-82 commercial airliner. Atmospheric Environment, 2012, 56, 33-44.	1.9	95