

Wei Liu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7796201/publications.pdf>

Version: 2024-02-01

52
papers

1,650
citations

257357

24
h-index

302012

39
g-index

53
all docs

53
docs citations

53
times ranked

811
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive review of thermal comfort studies in urban open spaces. <i>Science of the Total Environment</i> , 2020, 742, 140092.	3.9	128
2	Accurate and high-resolution boundary conditions and flow fields in the first-class cabin of an MD-82 commercial airliner. <i>Atmospheric Environment</i> , 2012, 56, 33-44.	1.9	95
3	A building energy consumption prediction model based on rough set theory and deep learning algorithms. <i>Energy and Buildings</i> , 2021, 240, 110886.	3.1	86
4	Evaluation of various categories of turbulence models for predicting air distribution in an airliner cabin. <i>Building and Environment</i> , 2013, 65, 118-131.	3.0	85
5	State-of-the-art methods for studying air distributions in commercial airliner cabins. <i>Building and Environment</i> , 2012, 47, 5-12.	3.0	81
6	Deep learning to replace, improve, or aid CFD analysis in built environment applications: A review. <i>Building and Environment</i> , 2021, 206, 108315.	3.0	75
7	A Markov chain model for predicting transient particle transport in enclosed environments. <i>Building and Environment</i> , 2015, 90, 30-36.	3.0	68
8	Comparing the Markov Chain Model with the Eulerian and Lagrangian Models for Indoor Transient Particle Transport Simulations. <i>Aerosol Science and Technology</i> , 2015, 49, 857-871.	1.5	50
9	A machine learning approach to predict outdoor thermal comfort using local skin temperatures. <i>Sustainable Cities and Society</i> , 2020, 59, 102216.	5.1	48
10	A hybrid model for investigating transient particle transport in enclosed environments. <i>Building and Environment</i> , 2013, 62, 45-54.	3.0	47
11	Inverse design of the thermal environment in an airliner cabin by use of the CFD-based adjoint method. <i>Energy and Buildings</i> , 2015, 104, 147-155.	3.1	46
12	Experimental and numerical study of airflow distribution in an aircraft cabin mock-up with a gasper on. <i>Journal of Building Performance Simulation</i> , 2016, 9, 555-566.	1.0	45
13	Development of a fast fluid dynamics-based adjoint method for the inverse design of indoor environments. <i>Journal of Building Performance Simulation</i> , 2017, 10, 326-343.	1.0	45
14	Implementation of a fast fluid dynamics model in OpenFOAM for simulating indoor airflow. <i>Numerical Heat Transfer; Part A: Applications</i> , 2016, 69, 748-762.	1.2	44
15	A comprehensive evaluation method for indoor air quality of buildings based on rough sets and a wavelet neural network. <i>Building and Environment</i> , 2019, 162, 106296.	3.0	41
16	State-of-the-art methods for inverse design of an enclosed environment. <i>Building and Environment</i> , 2015, 91, 91-100.	3.0	40
17	Strategy for Studying Ventilation Performance in Factories. <i>Aerosol and Air Quality Research</i> , 2016, 16, 442-452.	0.9	40
18	Accelerating the Lagrangian Method for Modeling Transient Particle Transport in Indoor Environments. <i>Aerosol Science and Technology</i> , 2015, 49, 351-361.	1.5	33

#	ARTICLE	IF	CITATIONS
19	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
20	Optimal air distribution design in enclosed spaces using an adjoint method. Inverse Problems in Science and Engineering, 2015, 23, 760-779.	1.2	31
21	Simulating buoyancy-driven airflow in buildings by coarse-grid fast fluid dynamics. Building and Environment, 2015, 85, 144-152.	3.0	27
22	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
23	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
24	Usage strategy of phase change materials in plastic greenhouses, in hot summer and cold winter climate. Applied Energy, 2020, 277, 115416.	5.1	25
25	Applications of Local Climate Zone Classification Scheme to Improve Urban Sustainability: A Bibliometric Review. Sustainability, 2020, 12, 8083.	1.6	25
26	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
27	Experimental study on characteristics of the jet flow from an aircraft gasper. Building and Environment, 2015, 93, 278-284.	3.0	23
28	Experimental study of particle deposition in the environmental control systems of commercial airliners. Building and Environment, 2016, 96, 62-71.	3.0	22
29	New semi-Lagrangian-based PISO method for fast and accurate indoor environment modeling. Building and Environment, 2016, 105, 236-244.	3.0	21
30	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
31	A novel method for measuring air infiltration rate in buildings. Energy and Buildings, 2018, 168, 309-318.	3.1	21
32	An ordered probability model for predicting outdoor thermal comfort. Energy and Buildings, 2018, 168, 261-271.	3.1	21
33	Modeling transient particle transport by fast fluid dynamics with the Markov chain method. Building Simulation, 2019, 12, 881-889.	3.0	21
34	Accelerating fast fluid dynamics with a coarse-grid projection scheme. HVAC and R Research, 2014, 20, 932-943.	0.9	18
35	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
36	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

#	ARTICLE	IF	CITATIONS
37	Development of adaptive coarse grid generation methods for fast fluid dynamics in simulating indoor airflow. <i>Journal of Building Performance Simulation</i> , 2018, 11, 470-484.	1.0	17
38	Predicting airflow distribution and contaminant transport in aircraft cabins with a simplified gasper model. <i>Journal of Building Performance Simulation</i> , 2016, 9, 699-708.	1.0	14
39	A simple method for differentiating direct and indirect exposure to exhaled contaminants in mechanically ventilated rooms. <i>Building Simulation</i> , 2018, 11, 1039-1051.	3.0	14
40	Inverse design of aircraft cabin ventilation by integrating three methods. <i>Building and Environment</i> , 2019, 150, 33-43.	3.0	14
41	Development of an integrated approach for the inverse design of built environment by a fast fluid dynamics-based generic algorithm. <i>Building and Environment</i> , 2019, 160, 106205.	3.0	12
42	Evaluation and comparison of various fast fluid dynamics modeling methods for predicting airflow around buildings. <i>Building Simulation</i> , 2022, 15, 1083-1095.	3.0	11
43	Numerical modeling of particle deposition in the environmental control systems of commercial airliners on ground. <i>Building Simulation</i> , 2017, 10, 265-275.	3.0	9
44	Performance of fast fluid dynamics with a semi-Lagrangian scheme and an implicit upwind scheme in simulating indoor/outdoor airflow. <i>Building and Environment</i> , 2022, 207, 108477.	3.0	9
45	Current studies on air distributions in commercial airliner cabins. <i>Theoretical and Applied Mechanics Letters</i> , 2013, 3, 062001.	1.3	7
46	Comparing calculation methods of state transfer matrix in Markov chain models for indoor contaminant transport. <i>Building and Environment</i> , 2022, 207, 108515.	3.0	7
47	Influence of Thermal Environment on Attendance and Adaptive Behaviors in Outdoor Spaces: A Study in a Cold-Climate University Campus. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 6139.	1.2	6
48	A semi-empirical mesh strategy for CFD simulation of indoor airflow. <i>Indoor and Built Environment</i> , 2022, 31, 2240-2256.	1.5	4
49	Transmission and exposure of kitchen particles: A case study in an apartment. <i>Indoor and Built Environment</i> , 2021, 30, 1503-1515.	1.5	3
50	Inverse modeling of thermal boundary conditions in commercial aircrafts based on Green's function and regularization method. <i>Building and Environment</i> , 2022, 217, 109062.	3.0	3
51	Integration of fast fluid dynamics and Markov chain model for predicting transient particle transport in buildings. <i>E3S Web of Conferences</i> , 2019, 111, 04030.	0.2	1
52	Integrated inverse design of ventilation for an aircraft cabin. <i>E3S Web of Conferences</i> , 2019, 85, 05006.	0.2	0