

# Shi-Jie Cao

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1981518/publications.pdf>

Version: 2024-02-01

81  
papers

2,996  
citations

117453

34  
h-index

182168

51  
g-index

83  
all docs

83  
docs citations

83  
times ranked

1686  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Ventilation control strategy using low-dimensional linear ventilation models and artificial neural network. <i>Building and Environment</i> , 2018, 144, 316-333.  | 3.0 | 130       |
| 2  | The effects of ventilation and floor heating systems on the dispersion and deposition of fine particles in an enclosed environment. <i>Building and Environment</i> , 2017, 125, 192-205.  | 3.0 | 107       |
| 3  | Occupant-density-detection based energy efficient ventilation system: Prevention of infection transmission. <i>Energy and Buildings</i> , 2021, 240, 110883.   | 3.1 | 96        |
| 4  | Development and application of linear ventilation and temperature models for indoor environmental prediction and HVAC systems control. <i>Sustainable Cities and Society</i> , 2019, 51, 101673.                                   | 5.1 | 95        |
| 5  | HVAC systems for environmental control to minimize the COVID-19 infection. <i>Indoor and Built Environment</i> , 2020, 29, 1195-1201.  | 1.5 | 93        |
| 6  | The impact of manufacturing parameters on submicron particle emissions from a desktop 3D printer in the perspective of emission reduction. <i>Building and Environment</i> , 2016, 104, 311-319.                                   | 3.0 | 92        |
| 7  | Study on the impacts of human walking on indoor particles dispersion using momentum theory method. <i>Building and Environment</i> , 2017, 126, 195-206.   | 3.0 | 90        |
| 8  | Implementation and visualization of artificial intelligent ventilation control system using fast prediction models and limited monitoring data. <i>Sustainable Cities and Society</i> , 2020, 52, 101860.                          | 5.1 | 88        |
| 9  | The 2019-nCoV epidemic control strategies and future challenges of building healthy smart cities. <i>Indoor and Built Environment</i> , 2020, 29, 639-644.   | 1.5 | 85        |
| 10 | Influence of atmospheric fine particulate matter (PM <sub>2.5</sub> ) pollution on indoor environment during winter in Beijing. <i>Building and Environment</i> , 2015, 87, 283-291.   | 3.0 | 83        |
| 11 | Mitigating COVID-19 infection disease transmission in indoor environment using physical barriers. <i>Sustainable Cities and Society</i> , 2021, 74, 103175.  | 5.1 | 83        |
| 12 | Influence of air change rates on indoor CO <sub>2</sub> stratification in terms of Richardson number and vorticity. <i>Building and Environment</i> , 2018, 129, 74-84.  | 3.0 | 79        |
| 13 | Impact of ventilation rates on indoor thermal comfort and energy efficiency of ground-source heat pump system. <i>Sustainable Cities and Society</i> , 2018, 37, 154-163.  | 5.1 | 79        |
| 14 | Challenges of using CFD simulation for the design and online control of ventilation systems. <i>Indoor and Built Environment</i> , 2019, 28, 3-6.  | 1.5 | 71        |
| 15 | An investigation of the PM <sub>2.5</sub> and NO <sub>2</sub> concentrations and their human health impacts in the metro subway system of Suzhou, China. <i>Environmental Sciences: Processes and Impacts</i> , 2017, 19, 666-675. | 1.7 | 64        |
| 16 | Impacts of humidification process on indoor thermal comfort and air quality using portable ultrasonic humidifier. <i>Building and Environment</i> , 2018, 133, 62-72.  | 3.0 | 64        |
| 17 | Incorporating online monitoring data into fast prediction models towards the development of artificial intelligent ventilation systems. <i>Sustainable Cities and Society</i> , 2019, 47, 101498.                                  | 5.1 | 64        |
| 18 | Investigation on thermal performance of steel heat exchanger for ground source heat pump systems using full-scale experiments and numerical simulations. <i>Applied Thermal Engineering</i> , 2017, 115, 91-98.                    | 3.0 | 60        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Experimental and numerical study on the thermal performance of ground source heat pump with a set of designed buried pipes. <i>Applied Thermal Engineering</i> , 2017, 114, 110-117.  | 3.0 | 57        |
| 20 | Energy analysis of a hybrid radiant cooling system under hot and humid climates: A case study at Shanghai in China. <i>Building and Environment</i> , 2018, 137, 208-214.   | 3.0 | 54        |
| 21 | Influence of turbulent boundary conditions on RANS simulations of pollutant dispersion in mechanically ventilated enclosures with transitional slot Reynolds number. <i>Building and Environment</i> , 2013, 59, 397-407.   | 3.0 | 52        |
| 22 | Development trend and challenges of sustainable urban design in the digital age. <i>Indoor and Built Environment</i> , 2021, 30, 3-6.   | 1.5 | 51        |
| 23 | Investigation of Ultra-fine Particle Emissions of Desktop 3D Printers in the Clean Room. <i>Procedia Engineering</i> , 2015, 121, 506-512.  | 1.2 | 49        |
| 24 | Fast prediction for indoor environment: Models assessment. <i>Indoor and Built Environment</i> , 2019, 28, 727-730.   | 1.5 | 49        |
| 25 | On the construction and use of linear low-dimensional ventilation models. <i>Indoor Air</i> , 2012, 22, 427-441.  | 2.0 | 48        |
| 26 | Sensor deployment strategy using cluster analysis of Fuzzy C-Means Algorithm: Towards online control of indoor environment's safety and health. <i>Sustainable Cities and Society</i> , 2020, 59, 102190.                   | 5.1 | 47        |
| 27 | In-car particulate matter exposure across ten global cities. <i>Science of the Total Environment</i> , 2021, 750, 141395.   | 3.9 | 46        |
| 28 | A newly developed electrostatic enhanced pleated air filters towards the improvement of energy and filtration efficiency. <i>Sustainable Cities and Society</i> , 2019, 49, 101569.   | 5.1 | 43        |
| 29 | Ventilation online monitoring and control system from the perspectives of technology application. <i>Indoor and Built Environment</i> , 2020, 29, 587-602.  | 1.5 | 40        |
| 30 | Removal of SARS-CoV-2 using UV+Filter in built environment. <i>Sustainable Cities and Society</i> , 2021, 74, 103226.   | 5.1 | 39        |
| 31 | Impacts of urban-scale building height diversity on urban climates: A case study of Nanjing, China. <i>Energy and Buildings</i> , 2021, 251, 111350.  | 3.1 | 38        |
| 32 | Associated relationship between ventilation rates and indoor air quality. <i>RSC Advances</i> , 2016, 6, 111427-111435.   | 1.7 | 37        |
| 33 | Investigation of temperature regulation effects on indoor thermal comfort, air quality, and energy savings toward green residential buildings. <i>Science and Technology for the Built Environment</i> , 2019, 25, 309-321. | 0.8 | 36        |
| 34 | Spatial distribution characteristics of PM2.5 concentration around residential buildings in urban traffic-intensive areas: From the perspectives of health and safety. <i>Safety Science</i> , 2021, 141, 105318.           | 2.6 | 35        |
| 35 | The effect of vent inlet aspect ratio and its location on ventilation efficiency. <i>Indoor and Built Environment</i> , 2020, 29, 180-195.  | 1.5 | 31        |
| 36 | Influences of the optimized air curtain at subway entrance to reduce the ingress of outdoor airborne particles. <i>Energy and Buildings</i> , 2021, 244, 111028.  | 3.1 | 31        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Fast prediction for multi-parameters (concentration, temperature and humidity) of indoor environment towards the online control of HVAC system. <i>Building Simulation</i> , 2021, 14, 649-665.                                    | 3.0 | 29        |
| 38 | Evaluation of polyethylene and steel heat exchangers of ground source heat pump systems based on seasonal performance comparison and life cycle assessment. <i>Energy and Buildings</i> , 2018, 162, 54-64.                        | 3.1 | 28        |
| 39 | Impact of Urban Park Design on Microclimate in Cold Regions using newly developed prediction method. <i>Sustainable Cities and Society</i> , 2022, 80, 103781.   | 5.1 | 28        |
| 40 | Impacts of Urban Form on Thermal Environment Near the Surface Region at Pedestrian Height: A Case Study Based on High-Density Built-Up Areas of Nanjing City in China. <i>Sustainability</i> , 2020, 12, 1737.                     | 1.6 | 26        |
| 41 | Effect of Residential Greenness and Nearby Parks on Respiratory and Allergic Diseases among Middle School Adolescents in a Chinese City. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 991. | 1.2 | 25        |
| 42 | Fast prediction of indoor pollutant dispersion based on reduced-order ventilation models. <i>Building Simulation</i> , 2015, 8, 415-420.   | 3.0 | 24        |
| 43 | Fast and accurate prediction of airflow and drag force for duct ventilation using wall-modeled large-eddy simulation. <i>Building and Environment</i> , 2018, 141, 226-235.  | 3.0 | 24        |
| 44 | Technology pathway of efficient and climate-friendly cooling in buildings: Towards carbon neutrality. <i>Indoor and Built Environment</i> , 2021, 30, 1307-1311.   | 1.5 | 24        |
| 45 | Indoor airborne disinfection with electrostatic disinfectant (ESD): Numerical simulations of ESD performance and reduction of computing time. <i>Building and Environment</i> , 2021, 200, 107956.                                 | 3.0 | 24        |
| 46 | Ventilation Strategies for Mitigation of Infection Disease Transmission in an Indoor Environment: A Case Study in Office. <i>Buildings</i> , 2022, 12, 180.  | 1.4 | 24        |
| 47 | In-kitchen aerosol exposure in twelve cities across the globe. <i>Environment International</i> , 2022, 162, 107155.   | 4.8 | 24        |
| 48 | Potential health risks due to in-car aerosol exposure across ten global cities. <i>Environment International</i> , 2021, 155, 106688.  | 4.8 | 23        |
| 49 | Ventilation inlets design based on ventilation performance assessment using a dimensionless time scale. <i>Indoor and Built Environment</i> , 2019, 28, 1049-1063.   | 1.5 | 21        |
| 50 | Development of self-adaptive low-dimension ventilation models using OpenFOAM: Towards the application of AI based on CFD data. <i>Building and Environment</i> , 2020, 171, 106671.  | 3.0 | 20        |
| 51 | Challenges and Future Development Paths of Low Carbon Building Design: A Review. <i>Buildings</i> , 2022, 12, 163.   | 1.4 | 20        |
| 52 | Nature-based solution of greenery configuration design by comprehensive benefit evaluation of microclimate environment and carbon sequestration. <i>Energy and Buildings</i> , 2022, 270, 112264.                                  | 3.1 | 19        |
| 53 | Challenges of using mobile phone signalling data to estimate urban population density: Towards smart cities and sustainable urban development. <i>Indoor and Built Environment</i> , 2020, 29, 147-150.                            | 1.5 | 18        |
| 54 | Quantitative investigations on setting parameters of air conditioning (air-supply speed and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf,50 62 Td  | 1.5 | 17        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Application of polyhedral meshing strategy in indoor environment simulation: Model accuracy and computing time. <i>Indoor and Built Environment</i> , 2022, 31, 719-731.  | 1.5 | 17        |
| 56 | Asymptotic conditions for the use of linear ventilation models in the presence of buoyancy forces. <i>Building Simulation</i> , 2014, 7, 131-136.   | 3.0 | 16        |
| 57 | Urban development in the context of extreme flooding events. <i>Indoor and Built Environment</i> , 2022, 31, 3-6.   | 1.5 | 16        |
| 58 | Green glass space based design for the driven of sustainable cities: A case study. <i>Sustainable Cities and Society</i> , 2022, 80, 103809.  | 5.1 | 16        |
| 59 | Ventilation impacts on infection risk mitigation, improvement of environmental quality and energy efficiency for subway carriages. <i>Building and Environment</i> , 2022, 222, 109358.   | 3.0 | 16        |
| 60 | Influential factors on thermoacoustic efficiency of multilayered graphene film loudspeakers for optimal design. <i>Journal of Applied Physics</i> , 2017, 122, .  | 1.1 | 15        |
| 61 | The impact of ventilation parameters on thermal comfort and energy-efficient control of the ground-source heat pump system. <i>Energy and Buildings</i> , 2018, 179, 324-332.   | 3.1 | 15        |
| 62 | Heating, ventilating and air conditioning system and environmental control for wellbeing. <i>Indoor and Built Environment</i> , 2020, 29, 1191-1194.  | 1.5 | 15        |
| 63 | A practical approach for preventing dispersion of infection disease in naturally ventilated room. <i>Journal of Building Engineering</i> , 2022, 48, 103921.  | 1.6 | 14        |
| 64 | Study on the subway environment induced by moving train using Gaussian distributed momentum source theory method. <i>Indoor and Built Environment</i> , 2019, 28, 1083-1091.  | 1.5 | 13        |
| 65 | New and emerging building ventilation technologies. <i>Indoor and Built Environment</i> , 2020, 29, 483-484.  | 1.5 | 13        |
| 66 | Numerical study on the integrated effects of supplied air velocity and exhaust velocity on particles removal for industrial buildings. <i>Energy and Built Environment</i> , 2021, 2, 380-391.  | 2.9 | 13        |
| 67 | Construction of linear temperature model using non-dimensional heat exchange ratio: Towards fast prediction of indoor temperature and heating, ventilation and air conditioning systems control. <i>Energy and Buildings</i> , 2021, 251, 111351. | 3.1 | 13        |
| 68 | Environmental co-benefits of urban design to mitigate urban heat island and PM <sub>2.5</sub> pollution: Considering prevailing wind's effects. <i>Indoor and Built Environment</i> , 2022, 31, 1787-1805.  | 1.5 | 13        |
| 69 | Incorporating denitrification-decomposition method to estimate field emissions for Life Cycle Assessment. <i>Science of the Total Environment</i> , 2017, 593-594, 65-74.   | 3.9 | 9         |
| 70 | Optimization of ventilation performance of side air supply for large indoor spaces using deflectors and slot air outlets. <i>Indoor and Built Environment</i> , 2023, 32, 323-342.  | 1.5 | 9         |
| 71 | Identification of zonal pollutant diffusion characteristics using dynamic mode decomposition: Towards the deployment of sensors. <i>Building and Environment</i> , 2021, 206, 108379.   | 3.0 | 7         |
| 72 | Non-uniform risk assessment methods for personalized ventilation on prevention and control of COVID-19. <i>Chinese Science Bulletin</i> , 2021, 66, 465-474.  | 0.4 | 7         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 73 | Prevalence of asthma and allergic symptoms in Suzhou, China: Trends by domestic migrant status. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2019, 29, 531-538.   | 1.8 | 6         |
| 74 | Energy-efficient preservation environment control for enclosed exhibition hall of earthen relics. <i>Energy and Buildings</i> , 2022, 256, 111713.   | 3.1 | 6         |
| 75 | Ergonomics-oriented operation, maintenance and control of indoor air environment for public buildings. <i>Chinese Science Bulletin</i> , 2022, 67, 1783-1795.  | 0.4 | 6         |
| 76 | Implementation of green infrastructure for improving the building environment of elderly care centres. <i>Journal of Building Engineering</i> , 2022, 54, 104682.  | 1.6 | 6         |
| 77 | Evaluation of the Influence of Transitional Slot Reynolds Numbers on Ventilation Efficiency in Mechanically Ventilated Enclosures. <i>Procedia Engineering</i> , 2015, 121, 635-644.   | 1.2 | 2         |
| 78 | Numerical study on the influence of human walking on contaminant transport indoors by using momentum theory method. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 397, 012079.   | 0.3 | 1         |
| 79 | A global challenge for smart and healthy care homes for the elderly. <i>Indoor and Built Environment</i> , 2022, 31, 1733-1737.  | 1.5 | 1         |
| 80 | Optimization of fibrous air filter on the basis of particle condensational growth during the air cooling and de-humidification process using mathematical modeling. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 609, 042033. | 0.3 | 0         |
| 81 | Determining V-I characteristics of energy-efficient electrostatic assisted air filtration system by utilizing the back-corona induced current model. <i>Energy and Built Environment</i> , 2021, , .   | 2.9 | 0         |