Hideki Kikumoto

List of Publications by Year
in descending order

79 papers	1,142 citations	361296 20 h-index	477173 29 g-index
87 all docs	87 docs citations	87 times ranked	751 citing authors

#	Article	IF	Citations
1	A numerical study of air pollutant dispersion with bimolecular chemical reactions in an urban street canyon using large-eddy simulation. Atmospheric Environment, 2012, 54, 456-464.	1.9	59
2	Large-eddy simulation of flow around an isolated building: A step-by-step analysis of influencing factors on turbulent statistics. Building and Environment, 2021, 202, 108021.	3.0	52
3	Observational study of power-law approximation of wind profiles within an urban boundary layer for various wind conditions. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 164, 13-21.	1.7	51
4	Bayesian inference for thermal response test parameter estimation and uncertainty assessment. Applied Energy, 2018, 209, 306-321.	5.1	51
5	Single-sided natural ventilation in buildings: a critical literature review. Building and Environment, 2022, 212, 108797.	3.0	51
6	Bayesian source term estimation of atmospheric releases in urban areas using LES approach. Journal of Hazardous Materials, 2018, 349, 68-78.	6.5	49
7	Study on the future weather data considering the global and local climate change for building energy simulation. Sustainable Cities and Society, 2015, 14, 404-413.	5.1	46
8	Effect of climate change on building cooling loads in Tokyo in the summers of the 2030s using dynamically downscaled GCM data. Energy and Buildings, 2016, 114, 123-129.	3.1	46
9	Large-eddy simulation of pollutant dispersion in a cavity at fine grid resolutions. Building and Environment, 2018, 127, 127-137.	3.0	33
10	Evaluation of mist-spraying environment on thermal sensations, thermal environment, and skin temperature under different operation modes. Building and Environment, 2020, 168, 106484.	3.0	30
11	Consistency of mean wind speed in pedestrian wind environment analyses: Mathematical consideration and a case study using large-eddy simulation. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 173, 91-99.	1.7	29
12	A study of urban thermal environment in Tokyo in summer of the 2030s under influence of global warming. Energy and Buildings, 2016, 114, 54-61.	3.1	27
13	Turbulent Schmidt number for source term estimation using Bayesian inference. Building and Environment, 2017, 125, 414-422.	3.0	25
14	Lattice Boltzmann method-based large-eddy simulation of indoor isothermal airflow. International Journal of Heat and Mass Transfer, 2019, 130, 700-709.	2.5	25
15	Measurements of exhaled airflow velocity through human coughs using particle image velocimetry. Building and Environment, 2021, 202, 108020.	3.0	25
16	Evaluation of k-î̧u Reynolds stress modeling in an idealized urban canyon using LES. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 175, 213-228.	1.7	23
17	Source term estimation in complex urban environments based on Bayesian inference and unsteady adjoint equations simulated via large eddy simulation. Building and Environment, 2021, 193, 107669.	3.0	23
18	Experimental measurements of airflow features and velocity distribution exhaled from sneeze and speech using particle image velocimetry. Building and Environment, 2021, 205, 108293.	3.0	23

#	Article	IF	Citations
19	Large eddy simulation of the effect of unstable thermal stratification on airflow and pollutant dispersion around a rectangular building. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 211, 104526.	1.7	22
20	Environmental index for evaluating thermal sensations in a mist spraying environment. Building and Environment, 2019, 161, 106219.	3.0	20
21	A study on air pollutant dispersion with bimolecular reactions in urban street canyons using large-eddy simulations. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 516-522.	1.7	18
22	Effects of wall function model in lattice Boltzmann method-based large-eddy simulation on built environment flows. Building and Environment, 2021, 195, 107764.	3.0	18
23	Validation of lattice Boltzmann method-based large-eddy simulation applied to wind flow around single 1:1:2 building model. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 206, 104277.	1.7	17
24	Impacts of inland water area changes on the local climate of Wuhan, China. Indoor and Built Environment, 2016, 25, 296-313.	1.5	16
25	New perspectives in thermal performance test: Cost-effective apparatus and extended data analysis. Energy and Buildings, 2018, 180, 109-121.	3.1	16
26	Bayesian inference of structural error in inverse models of thermal response tests. Applied Energy, 2018, 228, 1473-1485.	5.1	16
27	Boundary layer wind tunnel modeling experiments on pumping ventilation through a three-story reduce-scaled building with two openings. Building and Environment, 2021, 202, 108043.	3.0	16
28	Analysis of turbulent structures around a rectangular prism building model using spectral proper orthogonal decomposition. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 206, 104213.	1.7	15
29	CFD simulations on high-buoyancy gas dispersion in the wake of an isolated cubic building using steady RANS model and LES. Building and Environment, 2021, 188, 107478.	3.0	15
30	Identification of three-dimensional flow features around a square-section building model via spectral proper orthogonal decomposition. Physics of Fluids, 2021, 33, .	1.6	15
31	Comparison of winter air infiltration and its influences between large-space and normal-space buildings. Building and Environment, 2020, 184, 107183.	3.0	14
32	Wind tunnel experiment on high-buoyancy gas dispersion around isolated cubic building. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 202, 104226.	1.7	14
33	Wind-driven pumping flow ventilation of highrise buildings: Effects of upstream building arrangements and opening area ratios. Science of the Total Environment, 2020, 722, 137924.	3.9	13
34	Comprehensive validation of experimental and numerical natural ventilation predictions based on field measurement with experimental house. Building and Environment, 2022, 207, 108433.	3.0	13
35	A probabilistic approach to the energy-saving potential of natural ventilation: Effect of approximation method for approaching wind velocity. Building and Environment, 2017, 122, 94-104.	3.0	12
36	Study of mobile measurements for detailed temperature distribution in a high-density urban area in Tokyo. Urban Climate, 2018, 24, 517-528.	2.4	12

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37	Critical comparison between thermal performance test (TPT) and thermal response test (TRT): Differences in heat transfer process and extractable information. Energy Conversion and Management, 2019, 199, 111967.	4.4	12
38	Line source estimation of environmental pollutants using super-Gaussian geometry model and bayesian inference. Environmental Research, 2021, 194, 110706.	3.7	12
39	An investigation into heat storage by adopting local climate zones and nocturnal-diurnal urban heat island differences in the Tokyo Prefecture. Sustainable Cities and Society, 2022, 83, 103959.	5.1	12
40	Extended standard effective temperature index for water-misting environment. Building and Environment, 2021, 190, 107573.	3.0	11
41	Proposal of typical and design weather year for building energy simulation. Energy and Buildings, 2017, 139, 517-524.	3.1	10
42	Development of physiological human model considering mist wettedness for mist-spraying environments. Building and Environment, 2020, 180, 106706.	3.0	10
43	Development of probabilistic assessment framework for pedestrian wind environment using Bayesian technique. Building and Environment, 2021, 187, 107419.	3.0	10
44	A wall function approach in lattice Boltzmann method: algorithm and validation using turbulent channel flow. Fluid Dynamics Research, 2021, 53, 045506.	0.6	10
45	Sensor configuration optimization based on the entropy of adjoint concentration distribution for stochastic source term estimation in urban environment. Sustainable Cities and Society, 2022, 79, 103726.	5.1	10
46	Effect of diurnal variation in wind velocity profiles on ventilation performance estimates. Energy and Buildings, 2016, 130, 397-407.	3.1	9
47	Observational assessment of applicability of Pasquill stability class in urban areas for detection of neutrally stratified wind profiles. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 206, 104337.	1.7	8
48	Construction of urban turbulent flow database with wavelet-based compression: A study with large-eddy simulation of flow and dispersion in block-arrayed building group model. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 208, 104433.	1.7	8
49	Numerical modeling of cough airflow: Establishment of spatial–temporal experimental dataset and CFD simulation method. Building and Environment, 2022, 207, 108531.	3.0	8
50	Eulerian RANS simulations of near-field pollutant dispersion around buildings using concentration diffusivity limiter with travel time. Building and Environment, 2021, 202, 108047.	3.0	7
51	BENCHMARK TEST OF FLOW FIELD AROUND A 1:1:2 SHAPED BUILDING MODEL USING LES:. AIJ Journal of Technology and Design, 2020, 26, 179-184.	0.1	6
52	Winter air infiltration induced by combined buoyancy and wind forces in large-space buildings. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 210, 104501.	1.7	6
53	Spectral Proper Orthogonal Decomposition Analysis of Turbulent Flow in a Two-Dimensional Street Canyon and Its Role in Pollutant Removal. Boundary-Layer Meteorology, 2022, 183, 97-123.	1.2	6
54	Estimation of airflow distribution in cubic building group model using POD-LSE and limited sensors. Building and Environment, 2022, 221, 109324.	3.0	6

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55	An investigation into the relationship between remotely sensed land surface temperatures and heat stroke incident rates in the Tokyo Prefecture 2010â€"2019. Sustainable Cities and Society, 2021, 71, 102988.	5.1	5
56	Probabilistic uncertainty quantification of borehole thermal resistance in real-world scenarios. Energy, 2022, , 124400.	4.5	5
57	Wind tunnel experiments on pumping ventilation through a three-story reduce-scaled building with two openings affected by upwind and downwind buildings. Building and Environment, 2022, 219, 109188.	3.0	4
58	Two thermal performance test (TPT) datasets of a single U-tube borehole heat exchanger with inlet setpoint temperatures of 30â€Â°C and 40â€Â°C. Data in Brief, 2018, 20, 1769-1774.	0.5	3
59	INFLUENCE OF THE CONFIGURATION OF CONSECUTIVE URBAN STREET CANYONS AND ATMOSPHERIC STABILITY ON FLOW AND CONCENTRATION FIELDS BY CFD ANALYSIS. Journal of Environmental Engineering (Japan), 2011, 76, 185-193.	0.1	2
60	BIAS CORRECTION METHOD FOR SOLAR RADIATION BASED ON QUANTILE MAPPING TO PROVIDE WEATHER DATA FOR BUILDING ENERGY SIMULATIONS. Journal of Environmental Engineering (Japan), 2016, 81, 1047-1054.	0.1	2
61	SOURCE IDENTIFICATION OF ENVIRONMENTAL POLLUTANTS BASED ON TRACER DISPERSION IN REVERSED FLOW FIELD. Journal of Environmental Engineering (Japan), 2016, 81, 607-614.	0.1	2
62	NUMERICAL STUDY ON BI-MOLECULAR REACTION IN TURBULENT FLOW FIELD WITH TWO-DIMENSIONAL TEST ROOM USING LES. Journal of Environmental Engineering (Japan), 2010, 75, 629-636.	0.1	1
63	A STUDY OF EVALUATION METHOD OF THE CONCENTRATION VARIANCE AT THE SUBGRID-SCALE IN LARGE-EDDY SIMULATION. Journal of Environmental Engineering (Japan), 2013, 78, 579-588.	0.1	1
64	STUDY OF GRADIENT DIFFUSION APPROXIMATION OF REYNOLDS STRESS WITHIN AND ABOVE AN URBAN CANYON USING LES DATABASE. Journal of Environmental Engineering (Japan), 2015, 80, 1083-1093.	0.1	1
65	Performance verification of typical and design weather year by thermal load calculation targeting office building. Building Services Engineering Research and Technology, 2018, 39, 147-160.	0.9	1
66	Validation of thermoregulation human model considering mist wettedness on mist spraying environment. IOP Conference Series: Materials Science and Engineering, 2019, 609, 052034.	0.3	1
67	FIELD MEASUREMENT OF PARTICLE-SIZE DEPENDENCY IN CONCENTRATION CHANGES OF INDOOR PARTICULATE MATTER DURING VENTILATION WITH OPENING WINDOW. Journal of Environmental Engineering (Japan), 2016, 81, 1127-1136.	0.1	1
68	STUDY OF APPLICABILITY OF MOBILE MEASUREMENTS BASED ON AIR TEMPERATURE MEASUREMENTS. Journal of Environmental Engineering (Japan), 2017, 82, 767-777.	0.1	1
69	LES ON THE EFFECT OF BI-MOLECULAR REACTIONS ON THE AIR POLLUTANTS DISPERSION IN URBAN STREET CANYONS WITH VARIOUS ROOF-HEIGHTS. Journal of Environmental Engineering (Japan), 2011, 76, 697-704.	0.1	0
70	MODELING AND NUMERICAL VERIFICATION OF A REYNOLDS-AVERAGED MODEL FOR CORRELATION OF REACTIVE AIR POLLUTANTS CONCENTRATIONS. Journal of Environmental Engineering (Japan), 2012, 77, 267-273.	0.1	0
71	INFLUENCE OF VARIOUS COMPUTATIONAL CONDITIONS IN RANS MODEL ON THE PREDICTION ACCURACY OF CONCENTRATION DISTRIBUTIONS. AIJ Journal of Technology and Design, 2016, 22, 609-614.	0.1	0
72	10.1063/5.0041395.1. , 2021, , .		0

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73	10.1063/5.0041395.8. , 2021, , .		0
74	æ—¥æœ¬é¢¨å·¥å¦ä¼šç"ç©©å¥ åŠ±è³žã,'å•è³žã•â€"ã¶ . Wind Engineers JAWE, 2012, 37, 329-329.	0.0	0
75	Large-Eddy Simulation of the Turbulent Boundary Layer Using Generated Inflow Turbulence with Estimated Statistics. , 2013, , .		0
76	Numerical Analysis of the Momentum Transport and Temporal and Spatial Scales of Turbulent Coherent Structures in the Urban Boundary Layer Using Large Eddy Simulation. , 2013, , .		0
77	Evaluation of Prediction Accuracy of LES and Standard k-ε Model for Flow within and above Urban Canyon under Various Conditions of Thermal Stratification. Journal of Wind Engineering, 2017, 42, 9-21.	0.3	0
78	ESTIMATION OF NATURAL VENTILATION PARAMETERS BY A BAYESIAN APPROACH. Journal of Environmental Engineering (Japan), 2017, 82, 357-365.	0.1	0
79	VALIDITY EVALUATION OF TURBULENT FLUX MODELING IN STANDARD K-Î¼ MODEL WITHIN AND ABOVE URBAN CANYON UNDER VARIOUS CONDITIONS OF THERMAL STRATIFICATION USING LES. Journal of Environmental Engineering (Japan), 2017, 82, 893-903.	0.1	0