

Shinsuke Kato

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

2,429
citations

26
h-index

46
g-index

102
ext. papers

2,719
ext. citations

3.6
avg, IF

4.93
L-index

#	Paper	IF	Citations
98	Dispersion characteristics of oral microbial communities in a built environment. <i>Japan Architectural Review</i> , 2022 , 5, 225-232	0.8	0
97	Comparison of generation of particles and bacteria in endoscopic surgery and thoracotomy. <i>Building and Environment</i> , 2021 , 193, 107664	6.5	1
96	The effect of airspeed and wind direction on human's thermal conditions and air distribution around the body. <i>Building and Environment</i> , 2018 , 141, 103-116	6.5	25
95	Review of airflow and transport analysis in building using CFD and network model. <i>Japan Architectural Review</i> , 2018 , 1, 299-309	0.8	7
94	Cooling efficiency of a spot-type personalized air-conditioner. <i>Building and Environment</i> , 2017 , 121, 35-48	8.5	18
93	Evaluation of thermal characteristics on a multi-sheet-type radiant panel heating system. <i>Journal of Building Engineering</i> , 2016 , 8, 48-57	5.2	6
92	A Review: Coupled Simulation of CFD and Network Model for Heat and Contaminant Transport in a Building. <i>Journal of Asian Architecture and Building Engineering</i> , 2014 , 13, 231-238	1	4
91	Study on Statistical Prediction and Design Method for Indoor Thermal Environment. <i>Journal of Asian Architecture and Building Engineering</i> , 2014 , 13, 255-262	1	1
90	Building energy simulation considering spatial temperature distribution for nonuniform indoor environment. <i>Building and Environment</i> , 2013 , 63, 89-96	6.5	57
89	Long/Short-Term Performance Test for Evaluating the Reduction of Indoor Formaldehyde Using Sorptive Building Materials. <i>Indoor and Built Environment</i> , 2013 , 22, 52-60	1.8	2
88	Optimum design for indoor humidity by coupling Genetic Algorithm with transient simulation based on Contribution Ratio of Indoor Humidity and Climate analysis. <i>Energy and Buildings</i> , 2012 , 47, 208-216	7	28
87	Filtering for the Inverse Problem of Convection-Diffusion Equation with a Point Source. <i>Journal of the Physical Society of Japan</i> , 2012 , 81, 114401	1.5	1
86	Ventilating Cities. <i>Springer Geography</i> , 2012 ,	0.4	2
85	Ventilation Characteristics of Modeled Compact Car Part 6 - Numerical Analysis of Heat Transfer Characteristics by CRI 2012 ,		1
84	TIME TEMPORAL TRANSITION OF CONCENTRATION UNDER THE CONDITION OF NON-STATIONARY GENERATION OF TRACER. <i>Journal of Environmental Engineering (Japan)</i> , 2012 , 77, 797-803	0.3	
83	Legal Regulations for Urban Ventilation. <i>Springer Geography</i> , 2012 , 135-149	0.4	
82	Pollutant Dispersion in an Urban Area. <i>Springer Geography</i> , 2012 , 97-132	0.4	

81	New Criteria for Assessing the Local Wind Environment at the Pedestrian Level and the Applications. <i>Springer Geography</i> , 2012 , 151-193	0.4	
80	Investigation of Ventilation Effectiveness for Wind-Driven Single-Sided Ventilated Buildings Located in an Urban Environment. <i>International Journal of Ventilation</i> , 2011 , 10, 19-30	1.1	2
79	An experimental investigation of the wind environment and air quality within a densely populated urban street canyon. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2011 , 99, 857-867	3.7	23
78	Integration of three-dimensional CFD results into energy simulations utilizing an AdvectionDiffusion Response Factor. <i>Energy and Buildings</i> , 2011 , 43, 2752-2759	7	18
77	Wind tunnel investigation on influence of fluctuating wind direction on cross natural ventilation. <i>Building and Environment</i> , 2011 , 46, 2490-2499	6.5	44
76	Optimization of variables in air conditioning control systems: Applications of simulations integrating CFD analysis and response factor method. <i>Building Simulation</i> , 2011 , 4, 335-340	3.9	2
75	Experimental investigations of the indoor natural ventilation for different building configurations and incidences. <i>Building and Environment</i> , 2011 , 46, 65-74	6.5	19
74	Wind-induced ventilation performances and airflow characteristics in an areaway-attached basement with a single-sided opening. <i>Building and Environment</i> , 2011 , 46, 911-921	6.5	21
73	Development of new indices to assess the contribution of moisture sources to indoor humidity and application to optimization design: Proposal of CRI(H) and a transient simulation for the prediction of indoor humidity. <i>Building and Environment</i> , 2011 , 46, 1817-1826	6.5	18
72	Application of exceedance probability based on wind kinetic energy to evaluate the pedestrian level wind in dense urban areas. <i>Building and Environment</i> , 2011 , 46, 1834-1842	6.5	8
71	Estimating the germicidal effect of upper-room UVGI system on exhaled air of patients based on ventilation efficiency. <i>Building and Environment</i> , 2011 , 46, 2326-2332	6.5	19
70	CALCULATION METHOD OF CONTRIBUTION RATIO OF INDOOR CLIMATE (CRI) BY MEANS OF SETTING A UNIFORM HEAT SINK IN NATURAL CONVECTION AIR FLOW FIELD. <i>Journal of Environmental Engineering (Japan)</i> , 2010 , 75, 1033-1040	0.3	3
69	COMPARATIVE ANALYSIS OF THE COUPLED SIMULATION OF CFD AND ENERGY SIMULATION AND UNIFORM-MODEL-BASED SIMULATION. <i>Journal of Environmental Engineering (Japan)</i> , 2010 , 75, 73-78	0.3	1
68	Structural analysis of Pareto-optimal solution sets for multi-objective optimization: An application to outer window design problems using Multiple Objective Genetic Algorithms. <i>Building and Environment</i> , 2010 , 45, 1144-1152	6.5	43
67	Thermal simulation: Response factor analysis using three-dimensional CFD in the simulation of air conditioning control. <i>Building Simulation</i> , 2010 , 3, 195-203	3.9	24
66	Control of indoor thermal environment based on concept of contribution ratio of indoor climate. <i>Building Simulation</i> , 2010 , 3, 263-278	3.9	20
65	Measurements and numerical modeling of flow field and pollutant dispersion in areaway space. <i>Building Simulation</i> , 2010 , 3, 25-38	3.9	2
64	Simulation analysis of site design and layout planning to mitigate thermal environment of riverside residential development. <i>Building Simulation</i> , 2010 , 3, 51-61	3.9	25

63	Wind tunnel experiments on wind-induced natural ventilation rate in residential basements with areaway space. <i>Building and Environment</i> , 2010 , 45, 2263-2272	6.5	18
62	Measurement of airflow of air-conditioning in a car with PIV. <i>Journal of Visualization</i> , 2009 , 12, 119-130	1.6	11
61	Ventilation efficiency of void space surrounded by buildings with wind blowing over built-up urban area. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2009 , 97, 358-367	3.7	32
60	Performance test for evaluating the reduction of VOCs in rooms and evaluating the lifetime of sorptive building materials. <i>Building and Environment</i> , 2009 , 44, 207-215	6.5	43
59	New criteria for assessing local wind environment at pedestrian level based on exceedance probability analysis. <i>Building and Environment</i> , 2009 , 44, 1501-1508	6.5	28
58	Optimum design for smoke-control system in buildings considering robustness using CFD and Genetic Algorithms. <i>Building and Environment</i> , 2009 , 44, 2218-2227	6.5	26
57	Identification of Pollution Sources in Urban Areas Using Reverse Simulation with Reversed Time Marching Method. <i>Journal of Asian Architecture and Building Engineering</i> , 2009 , 8, 275-282	1	12
56	METHOD TO EVALUATE GERMICIDAL EFFICIENCY OF UR-UVGI SYSTEM. <i>Journal of Environmental Engineering (Japan)</i> , 2009 , 74, 621-627	0.3	
55	PROPOSAL OF COUPLING CFD WITH ENERGY SIMULATION BY CRI. <i>Journal of Environmental Engineering (Japan)</i> , 2008 , 73, 445-450	0.3	6
54	Analysis of wind-induced inflow and outflow through a single opening using LES & DES. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2008 , 96, 1678-1691	3.7	12
53	Study on inhaled air quality in a personal air-conditioning environment using new scales of ventilation efficiency. <i>Building and Environment</i> , 2008 , 43, 494-507	6.5	24
52	Towards the application of indoor ventilation efficiency indices to evaluate the air quality of urban areas. <i>Building and Environment</i> , 2008 , 43, 1991-2004	6.5	89
51	CFD analysis on traffic-induced air pollutant dispersion under non-isothermal condition in a complex urban area in winter. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2008 , 96, 1774-1788	3.7	27
50	Study on optimum design method for pleasant outdoor thermal environment using genetic algorithms (GA) and coupled simulation of convection, radiation and conduction. <i>Building and Environment</i> , 2008 , 43, 18-30	6.5	60
49	Exceedance probability as a tool to evaluate the wind environment of urban areas. <i>Wind and Structures, an International Journal</i> , 2008 , 11, 455-478		4
48	Two-step optimal design method using genetic algorithms and CFD-coupled simulation for indoor thermal environments. <i>Applied Thermal Engineering</i> , 2007 , 27, 3-11	5.8	20
47	3D-CFD analysis of diffusion and emission of VOCs in a FLEC cavity. <i>Indoor Air</i> , 2007 , 17, 178-88	5.4	13
46	A Numerical Study of Firebrands Scattering in Urban Fire Based on CFD and Firebrands Aerodynamics Measurements. <i>Journal of Fire Sciences</i> , 2007 , 25, 355-378	1.5	3

45	Development of a Computational Thermal Manikin Applicable in a Nonuniform Thermal Environment: Part 1: Coupled Simulation of Convection, Radiation, and Smith's Human Thermal Physiological Model for Sensible Heat Transfer from a Seated Human Body in Radiant Environment. <i>HVAC and R Research</i> , 2007 , 13, 661-679		16
44	STUDY ON CHARACTERISTICS OF WIND-INDUCED INFLOW AND OUTFLOW THROUGH A SINGLE OPENING IN A BUILDING USING LARGE-EDDY SIMULATIONS. <i>Journal of Environmental Engineering (Japan)</i> , 2007 , 72, 17-24	0.3	1
43	CONTROL OF INDOOR THERMAL ENVIRONMENT BASED ON THE CONCEPT OF CONTRIBUTION RATIO OF INDOOR CLIMATE : Part 2 Prediction of room air temperature based on CRI ₁ and CRI ₂ . <i>Journal of Environmental Engineering (Japan)</i> , 2007 , 72, 39-43	0.3	4
42	Energy conservation effect of new HVAC system for condominiums with solar collectors integrated with the balcony handrail. <i>Energy and Buildings</i> , 2006 , 38, 1360-1367	7	4
41	A study on a porous residential building model in hot and humid regions part 2: Reducing the cooling load by component-scale voids and the CO ₂ emission reduction effect of the building model. <i>Building and Environment</i> , 2006 , 41, 33-44	6.5	12
40	A study on a porous residential building model in hot and humid regions: Part 1: The natural ventilation performance and the cooling load reduction effect of the building model. <i>Building and Environment</i> , 2006 , 41, 21-32	6.5	27
39	Study on transport characteristics of saliva droplets produced by coughing in a calm indoor environment. <i>Building and Environment</i> , 2006 , 41, 1691-1702	6.5	253
38	Numerical Simulation of Fire Plume-Induced Ceiling Jets Using the Standard k-ε Model. <i>Fire Technology</i> , 2006 , 42, 131-160	3	4
37	CFD analysis of ventilation efficiency around an elevated highway using visitation frequency and purging flow rate. <i>Wind and Structures, an International Journal</i> , 2006 , 9, 297-313		16
36	Wind tunnel tests of effects of atmospheric stability on turbulent flow over a three-dimensional hill. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2005 , 93, 155-169	3.7	28
35	Field and wind-tunnel study of pollutant dispersion in a built-up area under various meteorological conditions. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2005 , 93, 361-382	3.7	31
34	Urban thermal environment measurements and numerical simulation for an actual complex urban area covering a large district heating and cooling system in summer. <i>Atmospheric Environment</i> , 2005 , 39, 6362-6375	5.3	88
33	Study on indoor thermal environment of office space controlled by cooling panel system using field measurement and the numerical simulation. <i>Building and Environment</i> , 2005 , 40, 301-310	6.5	47
32	Study on inhalation region by means of CFD analysis and experiment. <i>Building and Environment</i> , 2005 , 40, 1329-1336	6.5	62
31	CFD Simulation of Thermal Plume and Firebrands Scattering in Urban Fire. <i>Fire Science and Technology</i> , 2004 , 23, 152-163	0.8	4
30	INVESTIGATION OF FLOW FIELD IN HUMAN'S RESPIRATION AREA IN A CALM ENVIRONMENT BY VISUALIZATION EXPERIMENT AND NUMERICAL ANALYSIS. <i>Journal of Environmental Engineering (Japan)</i> , 2004 , 69, 37-42	0.3	11
29	Study of effect of adsorptive building material on formaldehyde concentrations: development of measuring methods and modeling of adsorption phenomena. <i>Indoor Air</i> , 2004 , 14 Suppl 8, 51-64	5.4	208
28	Radiational panel cooling system with continuous natural cross ventilation for hot and humid regions. <i>Energy and Buildings</i> , 2004 , 36, 1273-1280	7	26

27	Numerical simulation of thermal plumes in free space using the standard k- ϵ model. <i>Fire Safety Journal</i> , 2004 , 39, 105-129	3.3	18
26	Study on outdoor thermal environment of apartment block in Shenzhen, China with coupled simulation of convection, radiation and conduction. <i>Energy and Buildings</i> , 2004 , 36, 1247-1258	7	89
25	Design of a porous-type residential building model with low environmental load in hot and humid Asia. <i>Energy and Buildings</i> , 2004 , 36, 1181-1189	7	16
24	Effects of outdoor air conditions on hybrid air conditioning based on task/ambient strategy with natural and mechanical ventilation in office buildings. <i>Building and Environment</i> , 2004 , 39, 153-164	6.5	22
23	Flow Network Model based on Power Balance as Applied to Cross-Ventilation. <i>International Journal of Ventilation</i> , 2004 , 2, 395-408	1.1	23
22	CONTROL OF INDOOR THERMAL ENVIRONMENT BASED ON THE CONCEPT OF CONTRIBUTION RATIO OF INDOOR CLIMATE : Part 1 Mathematical formulation for describing the relation between temperature sensors and the point for control. <i>Journal of Environmental Engineering (Japan)</i> , 2004 ,	0.3	3
21	STUDY ON OPTIMUM DESIGN METHOD FOR PLEASANT OUTDOOR THERMAL ENVIRONMENT USING GENETIC ALGORITHM (GA) AND COUPLED SIMULATION OF CONVECTION, RADIATION AND CONDUCTION : Optimum arrangement of trees for design of pleasant outdoor thermal environment. <i>Journal of Environmental Engineering (Japan)</i> , 2004 , 69, 65-71	0.3	3
20	Room Air Distribution and Indoor Air Quality of Hybrid Air Conditioning System based on Natural and Mechanical Ventilation in an Office. <i>International Journal of Ventilation</i> , 2003 , 2, 65-75	1.1	5
19	Development of local area wind prediction system for selecting suitable site for windmill. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2003 , 91, 1759-1776	3.7	25
18	Analysis of visitation frequency through particle tracking method based on LES and model experiment. <i>Indoor Air</i> , 2003 , 13, 182-93	5.4	37
17	MODELING AND CFD PREDICTION FOR DIFFUSION AND ADSORPTION WITHIN ROOM WITH VARIOUS ADSORPTION ISOTHERM : CFD analysis of indoor air pollution by chemical compound Part 2. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2003 , 68, 33-38	0.2	2
16	NUMERICAL AND EXPERIMENTAL STUDY ON EMISSION, DIFFUSION AND SORPTION IN MODEL ROOM. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2003 , 68, 41-47	0.2	2
15	CFD analysis on characteristics of contaminated indoor air ventilation and its application in the evaluation of the effects of contaminant inhalation by a human occupant. <i>Building and Environment</i> , 2002 , 37, 219-230	6.5	64
14	Turbulence characteristics of wind over a hill with a rough surface. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2002 , 90, 1697-1706	3.7	30
13	STUDY ON THERMAL SHIELDING EFFECT OF DOUBLE ROOFING WITH AIR PASSAGE BY COUPLED SIMULATION OF CONVECTION AND RADIATION. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2002 , 67, 23-29	0.2	1
12	Coupled simulation of convection, radiation, and HVAC control for attaining a given PMV value. <i>Building and Environment</i> , 2001 , 36, 701-709	6.5	19
11	Indoor cooling/heating load analysis based on coupled simulation of convection, radiation and HVAC control. <i>Building and Environment</i> , 2001 , 36, 901-908	6.5	26
10	NUMERICAL ANALYSIS OF SCATTER OF FIRE BRAND WITHIN URBAN FIRE SPREAD. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2001 , 66, 187-192	0.2	6

9	Combined simulation of airflow, radiation and moisture transport for heat release from a human body. <i>Building and Environment</i> , 2000 , 35, 489-500	6.5	125
8	STUDY OF VISITATION FREQUENCY AND PURGING FLOW RATE BASED ON AVERAGED CONTAMINANT DISTRIBUTION : Study on evaluation of ventilation effectiveness of occupied space in room. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2000 , 65, 31-37	0.2	7
7	STUDY ON THERMAL PLUMES IN FREE SPACE BY MEANS OF NUMERICAL SIMULATION BASED ON STANDARD k- ϵ MODEL. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2000 , 65, 39-46	0.2	5
6	ESTIMATION OF CO ₂ EMISSION ASSOCIATED WITH BUILDING CONSTRUCTION AND OPERATION TILL 2050 IN JAPAN : Study on social life cycle assessment of buildings and cities. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 2000 , 65, 53-58	0.2	11
5	Numerical analysis of thermal plume caused by large-scale fire in urban area. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1999 , 81, 261-271	3.7	3
4	COUPLED SIMULATION OF CONVECTIVE AND RADIANT HEAT TRANSFER AROUND STANDING HUMAN BODY : Study on computational thermal manikin (Part 3). <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 1999 , 64, 69-74	0.2	4
3	STUDY ON MODIFIED k- ϵ MODEL APPLICABLE TO STABLE AND UNSTABLE FLOWS DUE TO BUOYANCY. <i>Nihon Kenchiku Gakkai Keikakukei Ronbunshu</i> , 1998 , 63, 33-38	0.2	3
2	Chained analysis of wind tunnel test and CFD on cross ventilation of large-scale market building. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1997 , 67-68, 573-587	3.7	35
1	Velocity-pressure field of cross ventilation with open windows analyzed by wind tunnel and numerical simulation. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1992 , 44, 2575-2586	3.7	93