

Shinsuke Kato

List of Publications by Year in descending order

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Version: 2024-02-01

98
papers

3,075
citations

168829

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190340

53
g-index

102
all docs

102
docs citations

102
times ranked

2630
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersion characteristics of oral microbial communities in a built environment. Japan Architectural Review, 2022, 5, 225-232.	0.4	4
2	Comparison of generation of particles and bacteria in endoscopic surgery and thoracotomy. Building and Environment, 2021, 193, 107664.	3.0	5
3	The effect of airspeed and wind direction on human's thermal conditions and air distribution around the body. Building and Environment, 2018, 141, 103-116.	3.0	40
4	Review of airflow and transport analysis in building using <sc>CFD</sc> and network model. Japan Architectural Review, 2018, 1, 299-309.	0.4	12
5	Cooling efficiency of a spot-type personalized air-conditioner. Building and Environment, 2017, 121, 35-48.	3.0	27
6	Evaluation of thermal characteristics on a multi-sheet-type radiant panel heating system. Journal of Building Engineering, 2016, 8, 48-57.	1.6	7
7	A Review: Coupled Simulation of CFD and Network Model for Heat and Contaminant Transport in a Building. Journal of Asian Architecture and Building Engineering, 2014, 13, 231-238.	1.2	8
8	Study on Statistical Prediction and Design Method for Indoor Thermal Environment. Journal of Asian Architecture and Building Engineering, 2014, 13, 255-262.	1.2	2
9	Building energy simulation considering spatial temperature distribution for nonuniform indoor environment. Building and Environment, 2013, 63, 89-96.	3.0	70
10	Long/Short-Term Performance Test for Evaluating the Reduction of Indoor Formaldehyde Using Sorptive Building Materials. Indoor and Built Environment, 2013, 22, 52-60.	1.5	3
11	TIME TEMPORAL TRANSITION OF CONCENTRATION UNDER THE CONDITION OF NON-STATIONARY GENERATION OF TRACER. Journal of Environmental Engineering (Japan), 2012, 77, 797-803.	0.1	0
12	Filtering for the Inverse Problem of Convection-Diffusion Equation with a Point Source. Journal of the Physical Society of Japan, 2012, 81, 114401.	0.7	1
13	Ventilation Characteristics of Modeled Compact Car Part 6 - Numerical Analysis of Heat Transfer Characteristics by CRI. , 2012, , .		1
14	Optimum design for indoor humidity by coupling Genetic Algorithm with transient simulation based on Contribution Ratio of Indoor Humidity and Climate analysis. Energy and Buildings, 2012, 47, 208-216.	3.1	35
15	Legal Regulations for Urban Ventilation. Springer Geography, 2012, , 135-149.	0.3	0
16	Pollutant Dispersion in an Urban Area. Springer Geography, 2012, , 97-132.	0.3	0
17	New Criteria for Assessing the Local Wind Environment at the Pedestrian Level and the Applications. Springer Geography, 2012, , 151-193.	0.3	0
18	Investigation of Ventilation Effectiveness for Wind-Driven Single-Sided Ventilated Buildings Located in an Urban Environment. International Journal of Ventilation, 2011, 10, 19-30.	0.2	3

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19	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.	1.7	30
20	Integration of three-dimensional CFD results into energy simulations utilizing an Advection-Diffusion Response Factor. <i>Energy and Buildings</i> , 2011, 43, 2752-2759.	3.1	20
21	Wind tunnel investigation on influence of fluctuating wind direction on cross natural ventilation. <i>Building and Environment</i> , 2011, 46, 2490-2499.	3.0	56
22	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.	3.0	2
23	Experimental investigations of the indoor natural ventilation for different building configurations and incidences. <i>Building and Environment</i> , 2011, 46, 65-74.	3.0	22
24	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.	3.0	25
25	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.	3.0	25
26	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.	3.0	13
27	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.	3.0	29
28	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.	0.1	4
29	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.	0.1	1
30	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.	3.0	52
31	Thermal simulation: Response factor analysis using three-dimensional CFD in the simulation of air conditioning control. <i>Building Simulation</i> , 2010, 3, 195-203.	3.0	31
32	Control of indoor thermal environment based on concept of contribution ratio of indoor climate. <i>Building Simulation</i> , 2010, 3, 263-278.	3.0	31
33	Measurements and numerical modeling of flow field and pollutant dispersion in areaway space. <i>Building Simulation</i> , 2010, 3, 25-38.	3.0	2
34	Simulation analysis of site design and layout planning to mitigate thermal environment of riverside residential development. <i>Building Simulation</i> , 2010, 3, 51-61.	3.0	28
35	Wind tunnel experiments on wind-induced natural ventilation rate in residential basements with areaway space. <i>Building and Environment</i> , 2010, 45, 2263-2272.	3.0	27
36	Measurement of airflow of air-conditioning in a car with PIV. <i>Journal of Visualization</i> , 2009, 12, 119-130.	1.1	15

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37	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.	1.7	35
38	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.	3.0	53
39	New criteria for assessing local wind environment at pedestrian level based on exceedance probability analysis. <i>Building and Environment</i> , 2009, 44, 1501-1508.	3.0	37
40	Optimum design for smoke-control system in buildings considering robustness using CFD and Genetic Algorithms. <i>Building and Environment</i> , 2009, 44, 2218-2227.	3.0	30
41	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.	1.2	16
42	METHOD TO EVALUATE GERMICIDAL EFFICIENCY OF UR-UVGI SYSTEM. <i>Journal of Environmental Engineering (Japan)</i> , 2009, 74, 621-627.	0.1	0
43	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.	1.7	14
44	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.	3.0	32
45	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.	3.0	114
46	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.	1.7	34
47	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.	3.0	74
48	Editorial: Should We Expect More from CFD Analysis?. <i>HVAC and R Research</i> , 2008, 14, 159-160.	0.9	0
49	PROPOSAL OF COUPLING CFD WITH ENERGY SIMULATION BY CRI. <i>Journal of Environmental Engineering (Japan)</i> , 2008, 73, 445-450.	0.1	6
50	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.	0.8	4
51	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.	0.9	9
52	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.	0.9	21
53	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.	3.0	24
54	3D-CFD analysis of diffusion and emission of VOCs in a FLEC cavity. <i>Indoor Air</i> , 2007, 17, 178-188.	2.0	20

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55	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.	0.1	1
56	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_<(C)> and CRI_<(R)>. <i>Journal of Environmental Engineering (Japan)</i> , 2007, 72, 39-43.	0.1	4
57	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.	3.1	5
58	A study on a porous residential building model in hot and humid regions part 2â€”reducing the cooling load by component-scale voids and the emission reduction effect of the building model. <i>Building and Environment</i> , 2006, 41, 33-44.	3.0	14
59	A study on a porous residential building model in hot and humid regions: Part 1â€”the natural ventilation performance and the cooling load reduction effect of the building model. <i>Building and Environment</i> , 2006, 41, 21-32.	3.0	37
60	Study on transport characteristics of saliva droplets produced by coughing in a calm indoor environment. <i>Building and Environment</i> , 2006, 41, 1691-1702.	3.0	338
61	Numerical Simulation of Fire Plume-Induced Ceiling Jets Using the Standard k- μ Model. <i>Fire Technology</i> , 2006, 42, 131-160.	1.5	10
62	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.	0.8	20
63	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.	1.7	36
64	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.	1.7	46
65	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.	1.9	106
66	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.	3.0	56
67	Study on inhalation region by means of CFD analysis and experiment. <i>Building and Environment</i> , 2005, 40, 1329-1336.	3.0	78
68	CFD Simulation of Thermal Plume and Firebrands Scattering in Urban Fire. <i>Fire Science and Technology</i> , 2004, 23, 152-163.	0.2	5
69	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.	0.1	11
70	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, 51-64.	2.0	235
71	Radiational panel cooling system with continuous natural cross ventilation for hot and humid regions. <i>Energy and Buildings</i> , 2004, 36, 1273-1280.	3.1	31
72	Numerical simulation of thermal plumes in free space using the standard k- μ model. <i>Fire Safety Journal</i> , 2004, 39, 105-129.	1.4	22

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73	Study on outdoor thermal environment of apartment block in Shenzhen, China with coupled simulation of convection, radiation and conduction. Energy and Buildings, 2004, 36, 1247-1258.	3.1	99
74	Design of a porous-type residential building model with low environmental load in hot and humid Asia. Energy and Buildings, 2004, 36, 1181-1189.	3.1	20
75	Effects of outdoor air conditions on hybrid air conditioning based on task/ambient strategy with natural and mechanical ventilation in office buildings. Building and Environment, 2004, 39, 153-164.	3.0	27
76	Flow Network Model based on Power Balance as Applied to Cross-Ventilation. International Journal of Ventilation, 2004, 2, 395-408.	0.2	26
77	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. Journal of Environmental Engineering (Japan), 2004, 69, 33-38.	0.1	3
78	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. Journal of Environmental Engineering (Japan), 2004, 69, 65-71.	0.1	3
79	Development of local area wind prediction system for selecting suitable site for windmill. Journal of Wind Engineering and Industrial Aerodynamics, 2003, 91, 1759-1776.	1.7	32
80	Analysis of visitation frequency through particle tracking method based on LES and model experiment. Indoor Air, 2003, 13, 182-193.	2.0	50
81	Room Air Distribution and Indoor Air Quality of Hybrid Air Conditioning System based on Natural and Mechanical Ventilation in an Office. International Journal of Ventilation, 2003, 2, 65-75.	0.2	5
82	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. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2003, 68, 33-38.	0.1	2
83	NUMERICAL AND EXPERIMENTAL STUDY ON EMISSION, DIFFUSION AND SORPTION IN MODEL ROOM. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2003, 68, 41-47.	0.1	2
84	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. Building and Environment, 2002, 37, 219-230.	3.0	85
85	Turbulence characteristics of wind over a hill with a rough surface. Journal of Wind Engineering and Industrial Aerodynamics, 2002, 90, 1697-1706.	1.7	36
86	STUDY ON THERMAL SHIELDING EFFECT OF DOUBLE ROOFING WITH AIR PASSAGE BY COUPLED SIMULATION OF CONVECTION AND RADIATION. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2002, 67, 23-29.	0.1	1
87	NUMERICAL ANALYSIS OF SCATTER OF FIRE BRAND WITHIN URBAN FIRE SPREAD. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2001, 66, 187-192.	0.1	7
88	Coupled simulation of convection, radiation, and HVAC control for attaining a given PMV value. Building and Environment, 2001, 36, 701-709.	3.0	26
89	Indoor cooling/heating load analysis based on coupled simulation of convection, radiation and HVAC control. Building and Environment, 2001, 36, 901-908.	3.0	38
90	Combined simulation of airflow, radiation and moisture transport for heat release from a human body. Building and Environment, 2000, 35, 489-500.	3.0	165

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91	STUDY OF VISITATION FREQUENCY AND PURGING FLOW RATE BASED ON AVERAGED CONTAMINANT DISTRIBUTION : Study on evaluation of ventilation effectiveness of occupied space in room. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2000, 65, 31-37.	0.1	11
92	STUDY ON THERMAL PLUMES IN FREE SPACE BY MEANS OF NUMERICAL SIMULATION BASED ON STANDARD $k-\epsilon$ MODEL. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2000, 65, 39-46.	0.1	5
93	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. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 2000, 65, 53-58.	0.1	11
94	Numerical analysis of thermal plume caused by large-scale fire in urban area. Journal of Wind Engineering and Industrial Aerodynamics, 1999, 81, 261-271.	1.7	5
95	COUPLED SIMULATION OF CONVECTIVE AND RADIANT HEAT TRANSFER AROUND STANDING HUMAN BODY : Study on computational thermal manikin (Part 3). Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 1999, 64, 69-74.	0.1	4
96	STUDY ON MODIFIED $k-\epsilon$ MODEL APPLICABLE TO STABLE AND UNSTABLE FLOWS DUE TO BUOYANCY. Nihon Kenchiku Gakkai Keikakukei Ronbunshu, 1998, 63, 33-38.	0.1	5
97	Chained analysis of wind tunnel test and CFD on cross ventilation of large-scale market building. Journal of Wind Engineering and Industrial Aerodynamics, 1997, 67-68, 573-587.	1.7	41
98	Velocity-pressure field of cross ventilation with open windows analyzed by wind tunnel and numerical simulation. Journal of Wind Engineering and Industrial Aerodynamics, 1992, 44, 2575-2586.	1.7	108