

Steffen Petersen

List of Publications by Year in descending order

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42
papers

1,396
citations

331670
21
h-index

345221
36
g-index

42
all docs

42
docs citations

42
times ranked

1335
citing authors

#	ARTICLE	IF	CITATIONS
1	Method and simulation program informed decisions in the early stages of building design. Energy and Buildings, 2010, 42, 1113-1119.	6.7	103
2	Method for room occupancy detection based on trajectory of indoor climate sensor data. Building and Environment, 2017, 115, 147-156.	6.9	98
3	Choosing the appropriate sensitivity analysis method for building energy model-based investigations. Energy and Buildings, 2016, 130, 166-176.	6.7	87
4	Bottom-up modelling methodology for urban-scale analysis of residential space heating demand response. Applied Energy, 2019, 242, 181-204.	10.1	80
5	Demand response potential of model predictive control of space heating based on price and carbon dioxide intensity signals. Energy and Buildings, 2016, 125, 196-204.	6.7	79
6	The effect of increased classroom ventilation rate indicated by reduced CO ₂ concentration on the performance of schoolwork by children. Indoor Air, 2016, 26, 366-379.	4.3	68
7	Space heating demand response potential of retrofitted residential apartment blocks. Energy and Buildings, 2017, 141, 158-166.	6.7	64
8	Model predictive control for demand response of domestic hot water preparation in ultra-low temperature district heating systems. Energy and Buildings, 2017, 146, 55-64.	6.7	62
9	The absolute environmental performance of buildings. Building and Environment, 2017, 119, 87-98.	6.9	61
10	Hierarchical calibration of archetypes for urban building energy modeling. Energy and Buildings, 2018, 175, 219-234.	6.7	60
11	The effect of weather forecast uncertainty on a predictive control concept for building systems operation. Applied Energy, 2014, 116, 311-321.	10.1	48
12	Establishing an image-based ground truth for validation of sensor data-based room occupancy detection. Energy and Buildings, 2016, 130, 787-793.	6.7	48
13	Multi-market demand response using economic model predictive control of space heating in residential buildings. Energy and Buildings, 2017, 150, 253-261.	6.7	46
14	Method for component-based economical optimisation for use in design of new low-energy buildings. Renewable Energy, 2012, 38, 173-180.	8.9	45
15	Long-term forecasting of hourly district heating loads in urban areas using hierarchical archetype modeling. Energy, 2020, 201, 117687.	8.8	38
16	Experimental test of a black-box economic model predictive control for residential space heating. Applied Energy, 2021, 298, 117227.	10.1	34
17	Bayesian calibration of building energy models: Comparison of predictive accuracy using metered utility data of different temporal resolution. Energy Procedia, 2017, 122, 277-282.	1.8	33
18	Method for simulating predictive control of building systems operation in the early stages of building design. Applied Energy, 2011, 88, 4597-4606.	10.1	32

#	ARTICLE	IF	CITATIONS
19	District heating energy efficiency of Danish building typologies. Energy and Buildings, 2021, 231, 110602.	6.7	29
20	The effect of including hydronic radiator dynamics in model predictive control of space heating. Energy and Buildings, 2019, 183, 772-784.	6.7	27
21	Research framework for development of building performance simulation tools for early design stages. Automation in Construction, 2020, 109, 102966.	9.8	23
22	Economic model predictive control of space heating and dynamic solar shading. Energy and Buildings, 2020, 209, 109661.	6.7	22
23	Evaluation of Grey-Box Model Parameter Estimates Intended for Thermal Characterization of Buildings. Energy Procedia, 2017, 132, 982-987.	1.8	20
24	A hybrid Decision Support System for Generation of Holistic Renovation Scenarios – Cases of Energy Consumption, Investment Cost, and Thermal Indoor Comfort. Sustainability, 2018, 10, 1255.	3.2	20
25	Prerequisites for reliable sensitivity analysis of a high fidelity building energy model. Energy and Buildings, 2019, 183, 1-16.	6.7	20
26	Investigation of the displacement effect of a diffuse ceiling ventilation system. Energy and Buildings, 2014, 85, 265-274.	6.7	19
27	A simple tool to evaluate the effect of the urban canyon on daylight level and energy demand in the early stages of building design. Solar Energy, 2014, 108, 61-68.	6.1	16
28	Towards practical model predictive control of residential space heating: Eliminating the need for weather measurements. Energy and Buildings, 2018, 170, 206-216.	6.7	15
29	Window View Quality: Why It Matters and What We Should Do. LEUKOS - Journal of Illuminating Engineering Society of North America, 2022, 18, 259-267.	2.9	14
30	Investigating the performance of scenario-based model predictive control of space heating in residential buildings. Journal of Building Performance Simulation, 2018, 11, 485-498.	2.0	13
31	System identification of thermal building models for demand response – A practical approach. Energy Procedia, 2017, 122, 937-942.	1.8	12
32	Comparison of centralized and decentralized model predictive control in a building retrofit scenario. Energy Procedia, 2017, 122, 979-984.	1.8	11
33	Rapid simulation of various types of HVAC systems in the early design stage. Energy Procedia, 2017, 122, 469-474.	1.8	9
34	Predicting Danish residential heating energy use from publicly available building characteristics. Energy and Buildings, 2018, 173, 28-37.	6.7	9
35	Method for including the economic value of indoor climate as design criterion in optimisation of office building design. Building and Environment, 2017, 122, 15-22.	6.9	9
36	Experimental validation of a model-based method for separating the space heating and domestic hot water components from smart-meter consumption data. E3S Web of Conferences, 2020, 172, 12001.	0.5	6

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37	Requirement analysis for building performance simulation tools conformed to fit design practice. Automation in Construction, 2020, 116, 103226.	9.8	6
38	Explaining variability in metered energy use for similar buildings using Bayesian inference. Energy Procedia, 2017, 132, 897-902.	1.8	5
39	Handling thermal comfort in economic model predictive control schemes for demand response. Energy Procedia, 2017, 122, 985-990.	1.8	4
40	The effect of seasonal weather changes on the performance of databased models of the thermodynamic behaviour of buildings. E3S Web of Conferences, 2020, 172, 02005.	0.5	1
41	The influence of unmeasured occupancy disturbances on the performance of black-box thermal building models. E3S Web of Conferences, 2020, 172, 02010.	0.5	0
42	Characteristic traits of visualizations for decision-making in the early stages of building design. Journal of Building Performance Simulation, 2021, 14, 403-419.	2.0	0