

# Steffen Petersen

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5855985/publications.pdf>

Version: 2024-02-01

42  
papers

1,396  
citations

331259

21  
h-index

344852

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.	3.1	103
2	Method for room occupancy detection based on trajectory of indoor climate sensor data. Building and Environment, 2017, 115, 147-156.	3.0	98
3	Choosing the appropriate sensitivity analysis method for building energy model-based investigations. Energy and Buildings, 2016, 130, 166-176.	3.1	87
4	Bottom-up modelling methodology for urban-scale analysis of residential space heating demand response. Applied Energy, 2019, 242, 181-204.	5.1	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.	3.1	79
6	The effect of increased classroom ventilation rate indicated by reduced CO <sub>2</sub> concentration on the performance of schoolwork by children. Indoor Air, 2016, 26, 366-379.	2.0	68
7	Space heating demand response potential of retrofitted residential apartment blocks. Energy and Buildings, 2017, 141, 158-166.	3.1	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.	3.1	62
9	The absolute environmental performance of buildings. Building and Environment, 2017, 119, 87-98.	3.0	61
10	Hierarchical calibration of archetypes for urban building energy modeling. Energy and Buildings, 2018, 175, 219-234.	3.1	60
11	The effect of weather forecast uncertainty on a predictive control concept for building systems operation. Applied Energy, 2014, 116, 311-321.	5.1	48
12	Establishing an image-based ground truth for validation of sensor data-based room occupancy detection. Energy and Buildings, 2016, 130, 787-793.	3.1	48
13	Multi-market demand response using economic model predictive control of space heating in residential buildings. Energy and Buildings, 2017, 150, 253-261.	3.1	46
14	Method for component-based economical optimisation for use in design of new low-energy buildings. Renewable Energy, 2012, 38, 173-180.	4.3	45
15	Long-term forecasting of hourly district heating loads in urban areas using hierarchical archetype modeling. Energy, 2020, 201, 117687.	4.5	38
16	Experimental test of a black-box economic model predictive control for residential space heating. Applied Energy, 2021, 298, 117227.	5.1	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.	5.1	32

#	ARTICLE	IF	CITATIONS
19	District heating energy efficiency of Danish building typologies. <i>Energy and Buildings</i> , 2021, 231, 110602.	3.1	29
20	The effect of including hydronic radiator dynamics in model predictive control of space heating. <i>Energy and Buildings</i> , 2019, 183, 772-784.	3.1	27
21	Research framework for development of building performance simulation tools for early design stages. <i>Automation in Construction</i> , 2020, 109, 102966.	4.8	23
22	Economic model predictive control of space heating and dynamic solar shading. <i>Energy and Buildings</i> , 2020, 209, 109661.	3.1	22
23	Evaluation of Grey-Box Model Parameter Estimates Intended for Thermal Characterization of Buildings. <i>Energy Procedia</i> , 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. <i>Sustainability</i> , 2018, 10, 1255.	1.6	20
25	Prerequisites for reliable sensitivity analysis of a high fidelity building energy model. <i>Energy and Buildings</i> , 2019, 183, 1-16.	3.1	20
26	Investigation of the displacement effect of a diffuse ceiling ventilation system. <i>Energy and Buildings</i> , 2014, 85, 265-274.	3.1	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. <i>Solar Energy</i> , 2014, 108, 61-68.	2.9	16
28	Towards practical model predictive control of residential space heating: Eliminating the need for weather measurements. <i>Energy and Buildings</i> , 2018, 170, 206-216.	3.1	15
29	Window View Quality: Why It Matters and What We Should Do. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 2022, 18, 259-267.	1.5	14
30	Investigating the performance of scenario-based model predictive control of space heating in residential buildings. <i>Journal of Building Performance Simulation</i> , 2018, 11, 485-498.	1.0	13
31	System identification of thermal building models for demand response – A practical approach. <i>Energy Procedia</i> , 2017, 122, 937-942.	1.8	12
32	Comparison of centralized and decentralized model predictive control in a building retrofit scenario. <i>Energy Procedia</i> , 2017, 122, 979-984.	1.8	11
33	Rapid simulation of various types of HVAC systems in the early design stage. <i>Energy Procedia</i> , 2017, 122, 469-474.	1.8	9
34	Predicting Danish residential heating energy use from publicly available building characteristics. <i>Energy and Buildings</i> , 2018, 173, 28-37.	3.1	9
35	Method for including the economic value of indoor climate as design criterion in optimisation of office building design. <i>Building and Environment</i> , 2017, 122, 15-22.	3.0	9
36	Experimental validation of a model-based method for separating the space heating and domestic hot water components from smart-meter consumption data. <i>E3S Web of Conferences</i> , 2020, 172, 12001.	0.2	6

#	ARTICLE	IF	CITATIONS
37	Requirement analysis for building performance simulation tools conformed to fit design practice. Automation in Construction, 2020, 116, 103226.	4.8	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.	0.2	1
41	The influence of unmeasured occupancy disturbances on the performance of black-box thermal building models. E3S Web of Conferences, 2020, 172, 02010.	0.2	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.	1.0	0