

# Julien Berger

## List of Publications by Year in descending order

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Version: 2024-02-01

44  
papers

500  
citations

759233

12  
h-index

794594

19  
g-index

46  
all docs

46  
docs citations

46  
times ranked

318  
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessing the wall energy efficiency design under climate change using POD reduced order model. <i>Energy and Buildings</i> , 2022, 268, 112187.	6.7	0
2	An efficient two-dimensional heat transfer model for building envelopes. <i>Numerical Heat Transfer; Part A: Applications</i> , 2021, 79, 163-194.	2.1	10
3	An efficient sensitivity analysis for energy performance of building envelope: A continuous derivative based approach. <i>Building Simulation</i> , 2021, 14, 909-930.	5.6	10
4	Parametric PGD model used with orthogonal polynomials to assess efficiently the building's envelope thermal performance. <i>Journal of Building Performance Simulation</i> , 2021, 14, 132-154.	2.0	2
5	Accelerated Aging Effects on the Hygrothermal Behaviour of Hemp Concrete: Experimental and Numerical Investigations. <i>Energies</i> , 2021, 14, 7005.	3.1	7
6	On the comparison of three numerical methods applied to building simulation: Finite-differences, RC circuit approximation and a spectral method. <i>Building Simulation</i> , 2020, 13, 1-18.	5.6	12
7	Weather-based indicators for analysis of moisture risks in buildings. <i>Science of the Total Environment</i> , 2020, 709, 134850.	8.0	8
8	Searching an optimal experiment observation sequence to estimate the thermal properties of a multilayer wall under real climate conditions. <i>International Journal of Heat and Mass Transfer</i> , 2020, 155, 119810.	4.8	9
9	Estimation of the thermal properties of an historic building wall by combining modal identification method and optimal experiment design. <i>Building and Environment</i> , 2020, 185, 107065.	6.9	6
10	Parameter estimation and model selection for water sorption in a wood fibre material. <i>Wood Science and Technology</i> , 2020, 54, 1423-1446.	3.2	5
11	Critical assessment of a new mathematical model for hysteresis effects on heat and mass transfer in porous building material. <i>International Journal of Thermal Sciences</i> , 2020, 151, 106275.	4.9	5
12	An efficient numerical model for the simulation of coupled heat, air, and moisture transfer in porous media. <i>Engineering Reports</i> , 2020, 2, e12099.	1.7	2
13	An efficient method to estimate sorption isotherm curve coefficients. <i>Inverse Problems in Science and Engineering</i> , 2019, 27, 735-772.	1.2	4
14	Evaluation of the reliability of a heat and mass transfer model in hygroscopic material. <i>International Journal of Heat and Mass Transfer</i> , 2019, 142, 118258.	4.8	13
15	Critical assessment of efficient numerical methods for a long-term simulation of heat and moisture transfer in porous materials. <i>International Journal of Thermal Sciences</i> , 2019, 145, 105982.	4.9	4
16	A new model for simulating heat, air and moisture transport in porous building materials. <i>International Journal of Heat and Mass Transfer</i> , 2019, 134, 1041-1060.	4.8	15
17	An efficient numerical model for liquid water uptake in porous material and its parameter estimation. <i>Numerical Heat Transfer; Part A: Applications</i> , 2019, 75, 110-136.	2.1	3
18	An innovative method to determine optimum insulation thickness based on non-uniform adaptive moving grid. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	1.6	9

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19	Numerical Methods for Diffusion Phenomena in Building Physics. , 2019, , .		5
20	Comparison of model numerical predictions of heat and moisture transfer in porous media with experimental observations at material and wall scales: An analysis of recent trends. Drying Technology, 2019, 37, 1363-1395.	3.1	22
21	Comparative Study of Three Models for Moisture Transfer in Hygroscopic Materials. Transport in Porous Media, 2019, 126, 379-410.	2.6	5
22	Solving nonlinear diffusive problems in buildings by means of a Spectral reduced-order model. Journal of Building Performance Simulation, 2019, 12, 17-36.	2.0	9
23	EVALUATING MODEL REDUCTION METHODS FOR HEAT AND MASS TRANSFER IN POROUS MATERIALS: PROPER ORTHOGONAL DECOMPOSITION AND PROPER GENERALIZED DECOMPOSITION. Journal of Porous Media, 2019, 22, 363-385.	1.9	6
24	An artificial intelligence-based method to efficiently bring CFD to building simulation. Journal of Building Performance Simulation, 2018, 11, 588-603.	2.0	14
25	Intelligent co-simulation: neural network vs. proper orthogonal decomposition applied to a 2D diffusive problem. Journal of Building Performance Simulation, 2018, 11, 568-587.	2.0	11
26	Dynamic experimental method for identification of hygric parameters of a hygroscopic material. Building and Environment, 2018, 131, 197-209.	6.9	23
27	On the Solution of Coupled Heat and Moisture Transport in Porous Material. Transport in Porous Media, 2018, 121, 665-702.	2.6	12
28	Analysis and improvement of the VTT mold growth model: Application to bamboo fiberboard. Building and Environment, 2018, 138, 262-274.	6.9	14
29	Stable explicit schemes for simulation of nonlinear moisture transfer in porous materials. Journal of Building Performance Simulation, 2018, 11, 129-144.	2.0	35
30	An improved explicit scheme for whole-building hygrothermal simulation. Building Simulation, 2018, 11, 465-481.	5.6	16
31	A hybrid analyticalâ€“numerical method for computing coupled temperature and moisture content fields in porous soils. Journal of Building Physics, 2018, 42, 68-94.	2.4	2
32	Advanced Reduced-Order Models for Moisture Diffusion in Porous Media. Transport in Porous Media, 2018, 124, 965-994.	2.6	5
33	An adaptive simulation of nonlinear heat and moisture transfer as a boundary value problem. International Journal of Thermal Sciences, 2018, 133, 120-139.	4.9	10
34	Proper Generalized Decomposition model reduction in the Bayesian framework for solving inverse heat transfer problems. Inverse Problems in Science and Engineering, 2017, 25, 260-278.	1.2	17
35	Accurate numerical simulation of moisture front in porous material. Building and Environment, 2017, 118, 211-224.	6.9	19
36	On the optimal experiment design for heat and moisture parameter estimation. Experimental Thermal and Fluid Science, 2017, 81, 109-122.	2.7	16

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37	Review of Reduced Order Models for Heat and Moisture Transfer in Building Physics with Emphasis in PGD Approaches. Archives of Computational Methods in Engineering, 2017, 24, 655-667.	10.2	11
38	Bayesian inference for estimating thermal properties of a historic building wall. Building and Environment, 2016, 106, 327-339.	6.9	40
39	Estimation of temperature-dependent thermal conductivity using proper generalised decomposition for building energy management. Journal of Building Physics, 2016, 40, 235-262.	2.4	7
40	2D whole-building hygrothermal simulation analysis based on a PGD reduced order model. Energy and Buildings, 2016, 112, 49-61.	6.7	18
41	Numerical methods for diffusion phenomena in building physics: a practical introduction. , 2016, , .		11
42	Factors governing the development of moisture disorders for integration into building performance simulation. Journal of Building Engineering, 2015, 3, 1-15.	3.4	40
43	Average reduced model to simulate solutions for heat and mass transfer through porous material. Heat Transfer, 0, , .	3.0	0
44	Surface Transfer Coefficients Estimation for Heat Conduction Problem Using the Bayesian Framework. Heat Transfer Engineering, 0, , 1-20.	1.9	0