Thierry Alex Mara

List of Publications by Year
in descending order

43 papers	1,403 citations	394421 19 h-index	330143 37 g-index
43 all docs	43 docs citations	43 times ranked	1301 citing authors

#	Article	IF	Citations
1	Random balance designs for the estimation of first order global sensitivity indices. Reliability Engineering and System Safety, 2006, 91, 717-727.	8.9	208
2	Variance-based sensitivity indices for models with dependent inputs. Reliability Engineering and System Safety, 2012, 107, 115-121.	8.9	171
3	A Node Pruning Algorithm Based on a Fourier Amplitude Sensitivity Test Method. IEEE Transactions on Neural Networks, 2006, 17, 273-293.	4.2	92
4	Bayesian sparse polynomial chaos expansion for global sensitivity analysis. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 474-496.	6.6	89
5	Application of global sensitivity analysis of model output to building thermal simulations. Building Simulation, 2008, 1, 290-302.	5.6	82
6	Use of global sensitivity analysis and polynomial chaos expansion for interpretation of nonreactive transport experiments in laboratoryâ€scale porous media. Water Resources Research, 2011, 47, .	4.2	72
7	Sky temperature modelisation and applications in building simulation. Renewable Energy, 1998, 15, 418-430.	8.9	71
8	Non-parametric methods for global sensitivity analysis of model output with dependent inputs. Environmental Modelling and Software, 2015, 72, 173-183.	4.5	66
9	Comparison of some efficient methods to evaluate the main effect of computer model factors. Journal of Statistical Computation and Simulation, 2008, 78, 167-178.	1.2	43
10	Extension of the RBD-FAST method to the computation of global sensitivity indices. Reliability Engineering and System Safety, 2009, 94, 1274-1281.	8.9	42
11	Application of uncertainty and sensitivity analysis to the air quality SHERPA modelling tool. Atmospheric Environment, 2018, 183, 84-93.	4.1	37
12	On the thermal behaviour of roof-mounted radiant barriers under tropical and humid climatic conditions: modelling and empirical validation. Energy and Buildings, 2003, 35, 997-1008.	6.7	34
13	Reactive Transport Parameter Estimation and Global Sensitivity Analysis Using Sparse Polynomial Chaos Expansion. Water, Air, and Soil Pollution, 2012, 223, 4183-4197.	2.4	28
14	Polynomial chaos expansion for sensitivity analysis of model output with dependent inputs. Reliability Engineering and System Safety, 2021, 214, 107795.	8.9	27
15	VARIANCE-BASED SENSITIVITY INDICES OF COMPUTER MODELS WITH DEPENDENT INPUTS: THE FOURIER AMPLITUDE SENSITIVITY TEST. , 2017, 7, 511-523.		27
16	Use of Global Sensitivity Analysis to Help Assess Unsaturated Soil Hydraulic Parameters. Vadose Zone Journal, 2013, 12, 1-12.	2.2	23
17	Building ventilation: a pressure airflow model computer generation and elements of validation. Energy and Buildings, 1999, 29, 283-292.	6.7	21
18	A new benchmark semi-analytical solution for density-driven flow in porous media. Advances in Water Resources, 2014, 70, 24-35.	3.8	21

#	Article	IF	Citations
19	A new benchmark reference solution for double-diffusive convection in a heterogeneous porous medium. Numerical Heat Transfer, Part B: Fundamentals, 2016, 70, 373-392.	0.9	20
20	Empirical validation of the thermal model of a passive solar cell test. Energy and Buildings, 2001, 33, 589-599.	6.7	19
21	Global sensitivity analysis and Bayesian parameter inference for solute transport in porous media colonized by biofilms. Journal of Contaminant Hydrology, 2016, 191, 1-18.	3.3	17
22	Sensitivity analysis of complex models: Coping with dynamic and static inputs. Reliability Engineering and System Safety, 2015, 134, 268-275.	8.9	16
23	Addressing factors fixing setting from given data: A comparison of different methods. Environmental Modelling and Software, 2017, 87, 29-38.	4.5	16
24	Global sensitivity analysis of solid oxide fuel cells with Bayesian sparse polynomial chaos expansions. Applied Energy, 2020, 260, 114318.	10.1	15
25	Parametric Sensitivity Analysis of a Test Cell Thermal Model Using Spectral Analysis. Journal of Solar Energy Engineering, Transactions of the ASME, 2002, 124, 237-242.	1.8	15
26	A comparison of two Bayesian approaches for uncertainty quantification. Environmental Modelling and Software, 2016, 82, 21-30.	4.5	14
27	A validation methodology aid for improving a thermal building model: case of diffuse radiation accounting in a tropical climate. Energy and Buildings, 2001, 33, 711-718.	6.7	13
28	Inversion and uncertainty of highly parameterized models in a Bayesian framework by sampling the maximal conditional posterior distribution of parameters. Advances in Water Resources, 2015, 76, 1-10.	3.8	13
29	Generation of stochastic weather data for uncertainty and sensitivity analysis of a low-energy building. Journal of Building Physics, 2017, 41, 41-57.	2.4	13
30	A new efficient Bayesian parameter inference strategy: Application to flow and pesticide transport through unsaturated porous media. Journal of Hydrology, 2018, 563, 887-899.	5.4	12
31	Bringing simulation to implementation: presentation of a global approach in the design of passive solar buildings under humid tropical climates. Solar Energy, 2001, 71, 109-120.	6.1	11
32	A Leslie matrix model for Sicyopterus lagocephalus in La RÃ©union: Sensitivity, uncertainty and research prioritization. Mathematical Biosciences, 2014, 256, 18-27.	1.9	9
33	Hydraulic and transport parameter assessment using column infiltration experiments. Hydrology and Earth System Sciences, 2017, 21, 2263-2275.	4.9	9
34	Application of global sensitivity analysis to a tire model with correlated inputs. Simulation Modelling Practice and Theory, 2014, 44, 54-62.	3.8	7
35	Dimensionality reduction for efficient Bayesian estimation of groundwater flow in strongly heterogeneous aquifers. Stochastic Environmental Research and Risk Assessment, 2017, 31, 2313-2326.	4.0	7
36	Comparison of two sets of Monte Carlo estimators of Sobolâ€™ indices. Environmental Modelling and Software, 2021, 144, 105167.	4.5	7

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37	Bayesian soil parameter estimation: Results of percolation-drainage vs infiltration laboratory experiments. Journal of Hydrology, 2018, 565, 770-778.	5.4	6
38	A projective hybridizable discontinuous Galerkin mixed method for second-order diffusion problems. Applied Mathematical Modelling, 2019, 75, 663-677.	4.2	4
39	Development of a New Model of Single-Speed Air Conditioners at Part-Load Conditions for Hourly Simulations. Journal of Solar Energy Engineering, Transactions of the ASME, 2005, 127, 294-301.	1.8	3
40	A syringe-sharing model for the spread of HIV: application to Omsk, Western Siberia. Mathematical Medicine and Biology, 2017, 34, dqv036.	1.2	1
41	Random Sampling from Joint Probability Distributions Defined in a Bayesian Framework. SIAM Journal of Scientific Computing, 2019, 41, A316-A338.	2.8	1
42	Use of Global Sensitivity and Data-Worth Analysis for an Efficient Estimation of Soil Hydraulic Properties. Water (Switzerland), 2020, 12, 736.	2.7	1
43	A new saliency measure for inputs selection and node pruning in neural network. , 0, , .		0