Ulrich RÃ¶mer

List of Publications by Year
in descending order

36	225	1162889	1125617
papers	citations	8 h-index	13 g-index

41	41	41	180
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Surrogateâ€based Bayesian calibration of biomechanical models with isotropic material behavior. International Journal for Numerical Methods in Biomedical Engineering, 2022, 38, e3575.	1.0	4
2	Uncertainty Quantification for Aircraft Noise Emission Simulation: Methods and Limitations. AIAA Journal, 2022, 60, 3020-3034.	1.5	6
3	An adaptive sparse grid rational Arnoldi method for uncertainty quantification of dynamical systems in the frequency domain. International Journal for Numerical Methods in Engineering, 2021, 122, 5487-5511.	1.5	0
4	Coupled simulation of transient heat flow and electric currents in thin wires: Application to bond wires in microelectronic chip packaging. Computers and Mathematics With Applications, 2020, 79, 1781-1801.	1.4	2
5	Stochastic phase-field modeling of brittle fracture: Computing multiple crack patterns and their probabilities. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113353.	3.4	27
6	Magnetic Field Simulation With Data-Driven Material Modeling. IEEE Transactions on Magnetics, 2020, 56, 1-6.	1.2	14
7	ENHANCED ADAPTIVE SURROGATE MODELS WITH APPLICATIONS IN UNCERTAINTY QUANTIFICATION FOR NANOPLASMONICS. , 2020, 10, 165-193.		5
8	Conformally mapped polynomial chaos expansions for Maxwell's source problem with random input data. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2776.	1.2	4
9	Uncertainty modeling and analysis of the European X-ray free electron laser cavities manufacturing process. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 971, 164135.	0.7	3
10	Design of Fuel Cell Systems for Aviation: Representative Mission Profiles and Sensitivity Analyses. Frontiers in Energy Research, 2019, 7, .	1.2	28
11	A Multilevel Monte Carlo Method for High-Dimensional Uncertainty Quantification of Low-Frequency Electromagnetic Devices. IEEE Transactions on Magnetics, 2019, 55, 1-12.	1.2	4
12	Optimization and uncertainty quantification of gradient index metasurfaces [Invited]. Optical Materials Express, 2019, 9, 892.	1.6	14
13	ASSESSING THE PERFORMANCE OF LEJA AND CLENSHAW-CURTIS COLLOCATION FOR COMPUTATIONAL ELECTROMAGNETICS WITH RANDOM INPUT DATA. , 2019, 9, 33-57.		14
14	STOCHASTIC MODELING OF MAGNETIC HYSTERETIC PROPERTIES BY USING MULTIVARIATE RANDOM FIELDS. , 2019, 9, 85-102.		5
15	Bond Wire Models. Mathematics in Industry, 2019, , 43-68.	0.1	0
16	Estimating Failure Probabilities. Mathematics in Industry, 2019, , 349-379.	0.1	0
17	Highâ€dimensional uncertainty quantification for an electrothermal field problem using stochastic collocation on sparse grids and tensor train decompositions. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2222.	1.2	3
18	Robust shape optimization of electric devices based on deterministic optimization methods and finite-element analysis with affine parametrization and design elements. Electrical Engineering, 2018, 100, 2635-2647.	1.2	10

#	Article	IF	Citations
19	Solving parameter estimation problems with discrete adjoint exponential integrators. Optimization Methods and Software, 2018, 33, 750-770.	1.6	3
20	Multilevel Monte Carlo simulation of the eddy current problem with random parameters. , 2017, , .		1
21	Modeling of spatial uncertainties in the magnetic reluctivity. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2017, 36, 1151-1167.	0.5	3
22	A defect corrected finite element approach for the accurate evaluation of magnetic fields on unstructured grids. Journal of Computational Physics, 2017, 335, 688-699.	1.9	4
23	Low-Dimensional Stochastic Modeling of the Electrical Properties of Biological Tissues. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	2
24	Determination of bond wire failure probabilities in microelectronic packages. , 2016, , .		3
25	Stochastic Modeling and Regularity of the Nonlinear Elliptic curl--curl Equation. SIAM-ASA Journal on Uncertainty Quantification, 2016, 4, 952-979.	1.1	7
26	Nanoelectronic COupled problems solutions - nanoCOPS: modelling, multirate, model order reduction, uncertainty quantification, fast fault simulation. Journal of Mathematics in Industry, 2016, 7, .	0.7	8
27	Balancing modeling and discretization errors in the numerical approximation of magnetostatic fields with uncertainties. , 2016, , .		0
28	Low-dimensional stochastic modeling of the electrical properties of biological tissues. , 2016, , .		0
29	Uncertainty Quantification for Magnets. Springer Theses, 2016, , 91-104.	0.0	0
30	Uncertainty Quantification. Springer Theses, 2016, , 65-90.	0.0	0
31	Parametric Model, Continuity and First Order Sensitivity Analysis. Springer Theses, 2016, , 39-63.	0.0	0
32	Adjoint Error Estimation for a Pseudo-Spectral Approach to Stochastic Field-Circuit Coupled Problems. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 711-714.	0.2	1
33	An adjoint approach for uncertainty quantification of magnetoquasistatic field problems. , 2015, , .		0
34	Approximation of Moments for the Nonlinear Magnetoquasistatic Problem With Material Uncertainties. IEEE Transactions on Magnetics, 2014, 50, 417-420.	1.2	19
35	Quantification of Uncertainty in the Field Quality of Magnets Originating from Material Measurements. IEEE Transactions on Magnetics, 2013, 49, 2367-2370.	1.2	18
36	Modeling of field singularities at dielectric edges using grid based methods. Advances in Radio Science, 2011, 9, 39-44.	0.7	8