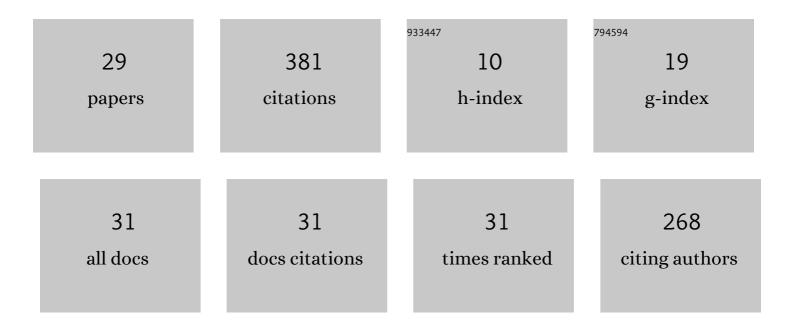
Dietmar Hömberg

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Weak entropy solutions to a model in induction hardening, existence and weak-strong uniqueness. Mathematical Models and Methods in Applied Sciences, 2021, 31, 1867-1918.	3.3	1
2	Three-dimensional numerical study of heat-affected zone in induction welding of tubes. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 213-219.	0.9	3
3	A phase-field-based graded-material topology optimization with stress constraint. Mathematical Models and Methods in Applied Sciences, 2020, 30, 1461-1483.	3.3	25
4	Comparison of various uncertainty models with experimental investigations regarding the failure of plates with holes. Reliability Engineering and System Safety, 2020, 203, 107106.	8.9	7
5	Modelling and simulation of flame cutting for steel plates with solid phases and melting. Journal of Mathematics in Industry, 2020, 10, .	1.2	8
6	Optimal control of multiphase steel production. Journal of Mathematics in Industry, 2019, 9, .	1.2	0
7	Graded-material design based on phase-field and topology optimization. Computational Mechanics, 2019, 64, 1589-1600.	4.0	36
8	Assessment and design of an engineering structure with polymorphic uncertainty quantification. GAMM Mitteilungen, 2019, 42, e201900009.	5.5	11
9	Uniqueness for an inverse problem for a nonlinear parabolic system with an integral term by one-point Dirichlet data. Journal of Differential Equations, 2019, 266, 7525-7544.	2.2	5
10	A revisited Johnson–Mehl–Avrami–Kolmogorov model and the evolution of grain-size distributions in steel. IMA Journal of Applied Mathematics, 2017, 82, 763-780.	1.6	7
11	Simulation of multi-frequency-induction-hardening including phase transitions and mechanical effects. Finite Elements in Analysis and Design, 2016, 121, 86-100.	3.2	54
12	Analysis and simulations of multifrequency induction hardening. Nonlinear Analysis: Real World Applications, 2015, 22, 84-97.	1.7	24
13	Optimal Control of a Cooling Line for Production of Hot Rolled Dual Phase Steel. Steel Research International, 2014, 85, 1328-1333.	1.8	10
14	Parameter identification in non-isothermal nucleation and growth processes. Inverse Problems, 2014, 30, 035003.	2.0	5
15	Nucleation Rate Identification in Binary Phase Transition. Mathematics for Industry, 2014, , 227-243.	0.4	0
16	Identification of the thermal growth characteristics of coagulated tumor tissue in laserâ€induced thermotherapy. Mathematical Methods in the Applied Sciences, 2012, 35, 497-509.	2.3	6
17	A time optimal control problem for the collision-free robot motion planning. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 725-726.	0.2	0
18	A model for resistance welding including phase transitions and Joule heating. Mathematical Methods in the Applied Sciences, 2011, 34, 2077-2088.	2.3	4

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19	Mathematical analysis of a thermomechanical milling process. GAMM Mitteilungen, 2011, 34, 59-63.	5.5	0
20	On a mathematical model for laser-induced thermotherapy. Applied Mathematical Modelling, 2010, 34, 3831-3840.	4.2	49
21	A MATHEMATICAL MODEL FOR CASE HARDENING OF STEEL. Mathematical Models and Methods in Applied Sciences, 2009, 19, 2101-2126.	3.3	8
22	On the evaluation of dilatometer experiments. Applicable Analysis, 2009, 88, 669-681.	1.3	5
23	Phase Transformation Modelling and Parameter Identification from Dilatometric Investigations. Steel Research International, 2008, 79, 793-799.	1.8	4
24	Modeling, analysis and simulation of case hardening of steel. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1150809-1150810.	0.2	0
25	On an inverse problem related to laser material treatments. Inverse Problems, 2006, 22, 1855-1867.	2.0	4
26	A thermoelastic contact problem with a phase transition. IMA Journal of Applied Mathematics, 2006, 71, 479-495.	1.6	5
27	A mathematical model for induction hardening including mechanical effects. Nonlinear Analysis: Real World Applications, 2004, 5, 55-90.	1.7	54
28	Optimal Shape Design of Inductor Coils for Surface Hardening. SIAM Journal on Control and Optimization, 2003, 42, 1087-1117.	2.1	16
29	Numerical simulation of the surface hardening of steel. International Journal of Numerical Methods for Heat and Fluid Flow, 1999, 9, 705-724.	2.8	30