Michal BeneÅ¡

List of Publications by Year
in descending order

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29	403	840776 11	752698 20
papers	citations	h-index	g-index

33	33	33	240
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Geometrical image segmentation by the Allenâ€“Cahn equation. Applied Numerical Mathematics, 2004, 51, 187-205.	2.1	147
2	An Improved Semi-Analytical Solution for Verification of Numerical Models of Two-Phase Flow in Porous Media. Vadose Zone Journal, 2007, 6, 93-104.	2.2	27
3	A dislocation dynamics analysis of the critical cross-slip annihilation distance and the cyclic saturation stress in fcc single crystals at different temperatures. Acta Materialia, 2013, 61, 7917-7923.	7.9	27
4	Diffuse-Interface Treatment of the Anisotropic Mean-Curvature Flow. Applications of Mathematics, 2003, 48, 437-453.	0.9	25
5	Aerosol wall deposition in enclosures investigated by means of a stagnant layer. Environment International, 1996, 22, 883-889.	10.0	23
6	Significance of Dynamic Effect in Capillarity during Drainage Experiments in Layered Porous Media. Vadose Zone Journal, 2010, 9, 697-708.	2.2	19
7	Mathematical analysis of phase-field equations with numerically efficient coupling terms. Interfaces and Free Boundaries, 2001, 3, 201-212.	0.8	15
8	Simulation of dynamical interaction between dislocations and dipolar loops. Journal of Applied Physics, 2010, 107, 061802.	2.5	14
9	Nonlinear Galerkin method for reactionâ€“diffusion systems admitting invariant regions. Journal of Computational and Applied Mathematics, 2001, 136, 163-176.	2.0	12
10	Semianalytical Solution for Twoâ€Phase Flow in Porous Media with a Discontinuity. Vadose Zone Journal, 2008, 7, 1001-1007.	2.2	12
11	Multidimensional self-similar analytical solutions of two-phase flow in porous media. Advances in Water Resources, 2016, 90, 51-56.	3.8	10
12	Numerical simulation of interacting dislocations glide in a channel of a persistent slip band. Modelling and Simulation in Materials Science and Engineering, 2009, 17, 045009.	2.0	7
13	Dynamics of dislocations described as evolving curves interacting with obstacles. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 035003.	2.0	6
14	Computational analysis of the conserved curvature driven flow for open curves in the plane. Mathematics and Computers in Simulation, 2016, 126, 1-13.	4.4	5
15	Numerical Simulation of Dislocation Dynamics. , 2004, , 631-640.		5
16	Numerical Investigation of Nonaqueous Phase Liquid Behavior at Heterogeneous Sand Layers Using VODA Multiphase Flow Code. Journal of Porous Media, 2009, 12, 685-694.	1.9	4
17	Mechanisms controlling the cyclic saturation stress and the critical cross-slip annihilation distance in copper single crystals. Philosophical Magazine Letters, 2014, 94, 45-52.	1.2	4
18	Nonlinear Galerkin finite element method applied to the system of reactionâ€“diffusion equations in one space dimension. Computers and Mathematics With Applications, 2017, 73, 2053-2065.	2.7	4

#	Article	IF	Citations
19	Error estimate of the finite volume scheme for the Allenâ€“Cahn equation. BIT Numerical Mathematics, 2018, 58, 489-507.	2.0	4
20	Numerical modeling of non-isothermal gas flow and NAPL vapor transport in soil. Computer Physics Communications, 2016, 202, 175-187.	7.5	3
21	Long-term Behavior of Curve Shortening Flow in $mathbb{R}^3$. SIAM Journal on Mathematical Analysis, 2020, 52, 1221-1231.	1.9	3
22	Towards clinical applicability of the diffusion-based DT-MRI visualization algorithm. Journal of Visual Communication and Image Representation, 2012, 23, 387-396.	2.8	2
23	Improving method for deterministic treatment of double cross-slip in FCC metals under low homologous temperatures. Computational Materials Science, 2021, 189, 110251.	3.0	2
24	Area preserving geodesic curvature driven flow of closed curves on a surface. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 3671-3689.	0.9	2
25	Analysis of the Parallel Finite Volume Solver for the Anisotropic Allenâ€“Cahn Equation in 3D. , 2010, , 839-846.		1
26	A Multipoint Flux Approximation Finite Volume Scheme for Solving Anisotropic Reactionâ€“Diffusion Systems in 3D. Springer Proceedings in Mathematics, 2011, , 741-749.	0.5	1
27	Minimal surface generating flow for space curves of non-vanishing torsion. Discrete and Continuous Dynamical Systems - Series B, 2022, 27, 6605.	0.9	1
28	Qualitative and Numerical Aspects of a Motion of a Family of Interacting Curves in Space. SIAM Journal on Applied Mathematics, 2022, 82, 549-575.	1.8	1
29	Curvature driven flow of a family of interacting curves withÂapplications. Mathematical Methods in the Applied Sciences, 2020, 43, 4177.	2.3	0