

Robert V Kohn

List of Publications by Year in descending order

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46
papers

2,828
citations

257450

24
h-index

223800

46
g-index

47
all docs

47
docs citations

47
times ranked

1046
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction with Expert Advice: A PDE Perspective. <i>Journal of Nonlinear Science</i> , 2020, 30, 137-173.	2.1	6
2	Crystal Growth Inhibition by Mobile Randomly Distributed Stoppers. <i>Crystal Growth and Design</i> , 2020, 20, 1940-1950.	3.0	4
3	On the Bending and Twisting of Rods with Misfit. <i>Journal of Elasticity</i> , 2018, 130, 115-143.	1.9	17
4	The Wrinkling of a Twisted Ribbon. <i>Journal of Nonlinear Science</i> , 2018, 28, 1221-1249.	2.1	14
5	Coarsening of Folds in Hanging Drapes. <i>Communications on Pure and Applied Mathematics</i> , 2017, 70, 978-1021.	3.1	13
6	Wrinkling of a thin circular sheet bonded to a spherical substrate. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160157.	3.4	13
7	Effect of Step Anisotropy on Crystal Growth Inhibition by Immobile Impurity Stoppers. <i>Crystal Growth and Design</i> , 2017, 17, 5474-5487.	3.0	13
8	Optimal Fine-Scale Structures in Compliance Minimization for a Shear Load. <i>Communications on Pure and Applied Mathematics</i> , 2016, 69, 1572-1610.	3.1	13
9	Blister Patterns and Energy Minimization in Compressed Thin Films on Compliant Substrates. <i>Communications on Pure and Applied Mathematics</i> , 2015, 68, 472-510.	3.1	20
10	Metric-Induced Wrinkling of a Thin Elastic Sheet. <i>Journal of Nonlinear Science</i> , 2014, 24, 1147-1176.	2.1	27
11	Optimal fine-scale structures in compliance minimization for a uniaxial load. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140432.	2.1	11
12	Wrinkles as the Result of Compressive Stresses in an Annular Thin Film. <i>Communications on Pure and Applied Mathematics</i> , 2014, 67, 693-747.	3.1	40
13	Analysis of a Compressed Thin Film Bonded to a Compliant Substrate: The Energy Scaling Law. <i>Journal of Nonlinear Science</i> , 2013, 23, 343-362.	2.1	23
14	Nucleation Barriers for the Cubic-to-Tetragonal Phase Transformation. <i>Communications on Pure and Applied Mathematics</i> , 2013, 66, 867-904.	3.1	39
15	Energy Scaling Laws for Conically Constrained Thin Elastic Sheets. <i>Journal of Elasticity</i> , 2013, 113, 251-264.	1.9	22
16	Asset price bubbles from heterogeneous beliefs about mean reversion rates. <i>Finance and Stochastics</i> , 2011, 15, 221-241.	1.1	12
17	The String Method as a Dynamical System. <i>Journal of Nonlinear Science</i> , 2011, 21, 193-230.	2.1	27
18	Minimal energy for elastic inclusions. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 695-717.	2.1	14

#	ARTICLE	IF	CITATIONS
19	Cloaking via change of variables for the Helmholtz equation. Communications on Pure and Applied Mathematics, 2010, 63, 973-1016.	3.1	38
20	A deterministic control-based approach to fully nonlinear parabolic and elliptic equations. Communications on Pure and Applied Mathematics, 2010, 63, 1298-1350.	3.1	45
21	Ground state energy scaling laws during the onset and destruction of the intermediate state in a type I superconductor. Communications on Pure and Applied Mathematics, 2008, 61, 595-626.	3.1	38
22	Optimization of structural topology in the high-porosity regime. Journal of the Mechanics and Physics of Solids, 2008, 56, 1043-1064.	4.8	23
23	Action minimization and sharp-interface limits for the stochastic Allen-Cahn equation. Communications on Pure and Applied Mathematics, 2007, 60, 393-438.	3.1	58
24	On the equivalence of the static and dynamic asset allocation problems. Quantitative Finance, 2006, 6, 173-183.	1.7	5
25	Sharp-interface limit of the Allen-Cahn action functional in one space dimension. Calculus of Variations and Partial Differential Equations, 2006, 25, 503-534.	1.7	22
26	Geometrically constrained walls. Calculus of Variations and Partial Differential Equations, 2006, 28, 33-57.	1.7	7
27	Another Thin-Film Limit of Micromagnetics. Archive for Rational Mechanics and Analysis, 2005, 178, 227-245.	2.4	95
28	Effective dynamics for ferromagnetic thin films: a rigorous justification. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 143-154.	2.1	40
29	Upper bound on the coarsening rate for an epitaxial growth model. Communications on Pure and Applied Mathematics, 2003, 56, 1549-1564.	3.1	76
30	Repulsive Interaction of Néel Walls, and the Internal Length Scale of the Cross-Tie Wall. Multiscale Modeling and Simulation, 2003, 1, 57-104.	1.6	26
31	A reduced theory for thin-film micromagnetics. Communications on Pure and Applied Mathematics, 2002, 55, 1408-1460.	3.1	109
32	Upper Bounds on Coarsening Rates. Communications in Mathematical Physics, 2002, 229, 375-395.	2.2	121
33	A new approach to the continuum modeling of epitaxial growth: slope selection, coarsening, and the role of the uphill current. Physica D: Nonlinear Phenomena, 2002, 161, 237-257.	2.8	15
34	Two-dimensional modelling of soft ferromagnetic films. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2001, 457, 2983-2991.	2.1	45
35	A compactness result in the gradient theory of phase transitions. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2001, 131, 833-844.	1.2	77
36	Modeling MOCVD Growth of YBCO Thin Films. Materials Research Society Symposia Proceedings, 2000, 648, 1.	0.1	1

#	ARTICLE	IF	CITATIONS
37	Domain Branching in Uniaxial Ferromagnets: A Scaling Law for the Minimum Energy. Communications in Mathematical Physics, 1999, 201, 61-79.	2.2	92
38	Microstructures minimizing the energy of a two phase elastic composite in two space dimensions. II: The vigdergauz microstructure. Journal of the Mechanics and Physics of Solids, 1995, 43, 949-972.	4.8	111
39	Surface energy and microstructure in coherent phase transitions. Communications on Pure and Applied Mathematics, 1994, 47, 405-435.	3.1	204
40	On the slowness of phase boundary motion in one space dimension. Communications on Pure and Applied Mathematics, 1990, 43, 983-997.	3.1	118
41	Local minimisers and singular perturbations. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1989, 111, 69-84.	1.2	259
42	Optimal design in elasticity and plasticity. International Journal for Numerical Methods in Engineering, 1986, 22, 183-188.	2.8	63
43	Optimal design and relaxation of variational problems, I. Communications on Pure and Applied Mathematics, 1986, 39, 113-137.	3.1	383
44	Optimal design and relaxation of variational problems, II. Communications on Pure and Applied Mathematics, 1986, 39, 139-182.	3.1	150
45	Optimal design and relaxation of variational problems, III. Communications on Pure and Applied Mathematics, 1986, 39, 353-377.	3.1	272
46	A PDE Approach to the Prediction of a Binary Sequence with Advice from Two History-Dependent Experts. Communications on Pure and Applied Mathematics, 0, , .	3.1	0