Andrea Braides

List of Publications by Year
in descending order

115 papers	2,592 citations	304368 22 h-index	288905 40 g-index
123 all docs	123 docs citations	123 times ranked	803 citing authors

#	Article	IF	Citations
1	Homogenization of quadratic convolution energies in periodically perforated domains. Advances in Calculus of Variations, 2022, 15, 351-368.	0.7	5
2	Topological Singularities in Periodic Media: Ginzburg–Landau and Core-Radius Approaches. Archive for Rational Mechanics and Analysis, 2022, 243, 559-609.	1.1	4
3	Homogenization of discrete thin structures. Nonlinear Analysis: Theory, Methods & Applications, 2022, , 112951.	0.6	0
4	Homogenization of random convolution energies. Journal of the London Mathematical Society, 2021, 104, 295-319.	0.5	8
5	Perspectives: Evolutions with Microstructure. Pathways in Mathematics, 2021, , 103-118.	0.1	0
6	Evolution of Planar Lattices. Pathways in Mathematics, 2021, , 53-101.	0.1	0
7	Discrete-to-Continuum Limits of Planar Lattice Energies. Pathways in Mathematics, 2021, , 31-51.	0.1	0
8	An extension theorem from connected sets and homogenization of non-local functionals. Nonlinear Analysis: Theory, Methods & Applications, 2021, 208, 112316.	0.6	3
9	Introduction: Motion on Lattices. Pathways in Mathematics, 2021, , 1-6.	0.1	0
10	Two geometric lemmas for $\mathbb{S}^{N-1}$-valued maps and an application to the homogenization of spin systems. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, 11.	0.7	0
11	Nucleation and Growth of Lattice Crystals. Journal of Nonlinear Science, 2021, 31, 1.	1.0	2
12	Homogenization of cohesive fracture in masonry structures. Mathematics and Mechanics of Solids, 2020, 25, 181-200.	1.5	7
13	Quantitative analysis of finite-difference approximations of free-discontinuity problems. Interfaces and Free Boundaries, 2020, 22, 317-381.	0.2	9
14	Discrete-to-Continuum Limits of Multibody Systems with Bulk and Surface Long-Range Interactions. SIAM Journal on Mathematical Analysis, 2020, 52, 3600-3665.	0.9	8
15	Compactness by Coarse-Graining in Long-Range Lattice Systems. Advanced Nonlinear Studies, 2020, 20, 783-794.	0.7	3
16	Γ-limit of the cut functional on dense graph sequences. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 26.	0.7	4
17	Minimizing movements for oscillating energies: the critical regime. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2019, 149, 719-737.	0.8	4
18	Homogenization of networks in domains with oscillating boundaries. Applicable Analysis, 2019, 98, 45-63.	0.6	7

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19	Static, Quasistatic and Dynamic Analysis for Scaled Perona-Malik Functionals. Acta Applicandae Mathematicae, 2018, 156, 79-107.	0.5	1
20	An Integral-Representation Result for Continuum Limits of Discrete Energies with MultiBody Interactions. SIAM Journal on Mathematical Analysis, 2018, 50, 1485-1520.	0.9	6
21	Asymptotic analysis of a ferromagnetic Ising system with â€œdiffuseâ€•interfacial energy. Annali Di Matematica Pura Ed Applicata, 2018, 197, 583-604.	0.5	2
22	Continuum limit and stochastic homogenization of discrete ferromagnetic thin films. Analysis and PDE, 2018, 11, 499-553.	0.6	12
23	A homogenization result for interacting elastic and brittle media. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180118.	1.0	7
24	Asymptotic Behaviour of Ground States for Mixtures of Ferromagnetic and Antiferromagnetic Interactions in a Dilute Regime. Journal of Statistical Physics, 2018, 171, 1096-1111.	0.5	2
25	Design of lattice surface energies. Calculus of Variations and Partial Differential Equations, 2018, 57, 1.	0.9	7
26	Rigidity Effects for Antiferromagnetic Thin Films: A Prototypical Example. Springer INdAM Series, 2018, , 205-216.	0.4	0
27	Interfaces, Modulated Phases and Textures in Lattice Systems. Archive for Rational Mechanics and Analysis, 2017, 223, 977-1017.	1.1	26
28	Density of polyhedral partitions. Calculus of Variations and Partial Differential Equations, 2017, 56, 1.	0.9	16
29	Analytical treatment for the asymptotic analysis of microscopic impenetrability constraints for atomistic systems. ESAIM: Mathematical Modelling and Numerical Analysis, 2017, 51, 1903-1929.	0.8	3
30	Optimal bounds for periodic mixtures of nearest-neighbour ferromagnetic interactions. Atti Della Accademia Nazionale Dei Lincei, Classe Di Scienze Fisiche, Matematiche E Naturali, Rendiconti Lincei Matematica E Applicazioni, 2017, 28, 103-117.	0.3	1
31	Homogenization of metrics in oscillating manifolds. ESAIM - Control, Optimisation and Calculus of Variations, 2017, 23, 889-912.	0.7	1
32	Crystalline Motion of Interfaces Between Patterns. Journal of Statistical Physics, 2016, 165, 274-319.	0.5	5
33	Interfacial Energies of Systems of Chiral Molecules. Multiscale Modeling and Simulation, 2016, 14, 1037-1062.	0.6	3
34	Quasi-static damage evolution and homogenization: A case study of non-commutability. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2016, 33, 309-328.	0.7	1
35	Minimizing movements along a sequence of functionals and curves of maximal slope. Comptes Rendus Mathematique, 2016, 354, 685-689.	0.1	8
36	Motion of Discrete Interfaces Through Mushy Layers. Journal of Nonlinear Science, 2016, 26, 1031-1053.	1.0	8

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37	Asymptotic analysis of Lennard-Jones systems beyond the nearest-neighbour setting: A one-dimensional prototypical case. Mathematics and Mechanics of Solids, 2016, 21, 915-930.	1.5	13
38	Discrete double-porosity models for spin systems. Mathematics and Mechanics of Complex Systems, 2016, 4, 79-102.	0.5	5
39	Homogenization of Discrete High-Contrast Energies. SIAM Journal on Mathematical Analysis, 2015, 47, 3064-3091.	0.9	11
40	Q-Tensor Continuum Energies as Limits of Head-to-Tail Symmetric Spin Systems. SIAM Journal on Mathematical Analysis, 2015, 47, 2832-2867.	0.9	12
41	Local Minimization, Variational Evolution and Γ-Convergence. Lecture Notes in Mathematics, 2014, , .	0.1	57
42	An Example of Non-Existence of Plane-Like Minimizers for an Almost-Periodic Ising System. Journal of Statistical Physics, 2014, 157, 295-302.	0.5	6
43	Global Minimization. Lecture Notes in Mathematics, 2014, , 7-24.	0.1	2
44	Variational evolution of one-dimensional Lennard-Jones systems. Networks and Heterogeneous Media, 2014, 9, 217-238.	0.5	3
45	Parameterized Motion Driven by Global Minimization. Lecture Notes in Mathematics, 2014, , 25-52.	0.1	0
46	Nucleation and backward motion of discrete interfaces. Comptes Rendus Mathematique, 2013, 351, 803-806.	0.1	3
47	Homogenization of surface and length energies for spin systems. Journal of Functional Analysis, 2013, 264, 1296-1328.	0.7	31
48	Motion of discrete interfaces in periodic media. Interfaces and Free Boundaries, 2013, 15, 451-476.	0.2	9
49	A compactness result for a second-order variational discrete model. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 389-410.	0.8	6
50	A Quantitative Description of Mesh Dependence for the Discretization of Singularly Perturbed Nonconvex Problems. SIAM Journal on Numerical Analysis, 2012, 50, 1883-1898.	1.1	10
51	Variational Problems with Percolation: Dilute Spin Systems at Zero Temperature. Journal of Statistical Physics, 2012, 149, 846-864.	0.5	9
52	Models of defects in atomistic systems. Calculus of Variations and Partial Differential Equations, 2011, 41, 71-109.	0.9	2
53	INTERFACIAL ENERGIES ON PENROSE LATTICES. Mathematical Models and Methods in Applied Sciences, 2011, 21, 1193-1210.	1.7	9
54	Motion and Pinning of Discrete Interfaces. Archive for Rational Mechanics and Analysis, 2010, 195, 469-498.	1.1	18

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55	Homogenization of non-uniformly bounded periodic diffusion energies in dimension two. Nonlinearity, 2009, 22, 1459-1480.	0.6	9
56	Homogenization of Penrose tilings. Comptes Rendus Mathematique, 2009, 347, 697-700.	0.1	12
57	Multiscale analysis of a prototypical model for the interaction between microstructure and surface energy. Interfaces and Free Boundaries, 2009, 11, 61-118.	0.2	15
58	Asymptotic expansions by Γ-convergence. Continuum Mechanics and Thermodynamics, 2008, 20, 21-62.	1.4	84
59	Overall Properties of a Discrete Membrane with Randomly Distributed Defects. Archive for Rational Mechanics and Analysis, 2008, 189, 301-323.	1.1	16
60	Continuum limits of discrete thin films with superlinear growth densities. Calculus of Variations and Partial Differential Equations, 2008, 33, 267-297.	0.9	23
61	Asymptotic analysis of periodically-perforated nonlinear media at and close to the critical exponent. Comptes Rendus Mathematique, 2008, 346, 363-367.	0.1	1
62	Exact Bounds on the Effective Behavior of a Conducting Discrete Polycrystal. Multiscale Modeling and Simulation, 2008, 6, 1198-1216.	0.6	1
63	Homogenization by blow-up. Applicable Analysis, 2008, 87, 1341-1356.	0.6	21
64	A variational model in image processing with focal points. ESAIM: Mathematical Modelling and Numerical Analysis, 2008, 42, 729-748.	0.8	5
65	Non convex homogenization problems for singular structures. Networks and Heterogeneous Media, 2008, 3, 489-508.	0.5	4
66	SURFACE ENERGIES IN NONCONVEX DISCRETE SYSTEMS. Mathematical Models and Methods in Applied Sciences, 2007, 17, 985-1037.	1.7	43
67	A relaxation result for energies defined on pairs set-function and applications. ESAIM - Control, Optimisation and Calculus of Variations, 2007, 13, 717-734.	0.7	27
68	Homogenization of Non-Linear Variational Problems with Thin Low-Conducting Layers. Applied Mathematics and Optimization, 2007, 55, 1-29.	0.8	4
69	A note on equi-integrability in dimension reduction problems. Calculus of Variations and Partial Differential Equations, 2007, 29, 231-238.	0.9	8
70	A derivation of linear elastic energies from pair-interaction atomistic systems. Networks and Heterogeneous Media, 2007, 2, 551-567.	0.5	38
71	Chapter 2 A handbook of Γ-convergence. Handbook of Differential Equations: Stationary Partial Differential Equations, 2006, 3, 101-213.	0.7	74
72	Effective Cohesive Behavior of Layers of Interatomic Planes. Archive for Rational Mechanics and Analysis, 2006, 180, 151-182.	1.1	59

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73	Approximation by Γ-convergence of a curvature-depending functional in visual reconstruction. Communications on Pure and Applied Mathematics, 2006, 59, 71-121.	1.2	24
74	From discrete systems to continuous variational problems: an introduction. , 2006, , 3-77.		17
75	Multiscale Analysis by Γ‐Convergence of a One‐Dimensional Nonlocal Functional Related to a Shell‐Membrane Transition. SIAM Journal on Mathematical Analysis, 2006, 38, 944-976.	0.9	5
76	Another Brick in the Wall. Progress in Nonlinear Differential Equations and Their Application, 2006, , 13-24.	0.4	1
77	Phase and anti-phase boundaries in binary discrete systems: a variational viewpoint. Networks and Heterogeneous Media, 2006, 1, 85-107.	0.5	53
78	Variational approximation of anisotropic functionals on partitions. Annali Di Matematica Pura Ed Applicata, 2005, 184, 75-93.	0.5	10
79	Bounds on the effective behaviour of a square conducting lattice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 1755-1769.	1.0	14
80	Gradient theory of phase transitions in composite media. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2003, 133, 265-296.	0.8	21
81	Continuum Limits of Discrete Systems without Convexity Hypotheses. Mathematics and Mechanics of Solids, 2002, 7, 41-66.	1.5	61
82	Thin films with many small cracks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 823-840.	1.0	6
83	Curvature theory of boundary phases: the two-dimensional case. Interfaces and Free Boundaries, 2002, 4, 345-370.	0.2	9
84	Asymptotic analysis of periodically-perforated nonlinear media. Journal Des Mathematiques Pures Et Appliquees, 2002, 81, 439-451.	0.8	31
85	APPROXIMATION OF FREE-DISCONTINUITY PROBLEMS. , 2002, , 121-131.		58
86	Brittle Thin Films. Applied Mathematics and Optimization, 2001, 44, 299-323.	0.8	36
87	Homogenization of oscillating boundaries and applications to thin films. Journal D'Analyse Mathematique, 2001, 83, 151-182.	0.4	30
88	Title is missing!. Acta Applicandae Mathematicae, 2001, 65, 59-81.	0.5	10
89	3D-2D Asymptotic Analysis for Inhomogeneous Thin Films. Indiana University Mathematics Journal, 2000, 49, 0-0.	0.4	80
90	REITERATED HOMOGENIZATION OF INTEGRAL FUNCTIONALS. Mathematical Models and Methods in Applied Sciences, 2000, 10, 47-71.	1.7	30

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91	NON-LOCAL VARIATIONAL LIMITS OF DISCRETE SYSTEMS. Communications in Contemporary Mathematics, 2000, 02, 285-297.	0.6	19
92	A-Quasiconvexity: Relaxation and Homogenization. ESAIM - Control, Optimisation and Calculus of Variations, 2000, 5, 539-577.	0.7	55
93	Variational Formulation of Softening Phenomena in Fracture Mechanics: The One-Dimensional Case. Archive for Rational Mechanics and Analysis, 1999, 146, 23-58.	1.1	117
94	Special functions with bounded variation and with weakly differentiable traces on the jump set. Nonlinear Differential Equations and Applications, 1998, 5, 219-243.	0.4	8
95	Î“-Convergence of nonconvex functionals defined on measures. Nonlinear Analysis: Theory, Methods & Applications, 1998, 34, 953-978.	0.6	4
96	On the non-local approximation of free-discontinuity problems. Communications in Partial Differential Equations, 1998, 23, 817-829.	1.0	12
97	Free-discontinuity problems generated by singular perturbation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1998, 128, 1115-1129.	0.8	14
98	Non-local approximation of the Mumford-Shah functional. Calculus of Variations and Partial Differential Equations, 1997, 5, 293-322.	0.9	73
99	A Relaxation Approach to Hencky's Plasticity. Applied Mathematics and Optimization, 1997, 35, 45-68.	0.8	9
100	Homogenization of free discontinuity problems. Archive for Rational Mechanics and Analysis, 1996, 135, 297-356.	1.1	77
101	The Lavrentiev Phenomenon for Free Discontinuity Problems. Journal of Functional Analysis, 1995, 127, 1-20.	0.7	0
102	Relaxation results for some free discontinuity problems.. Journal Fur Die Reine Und Angewandte Mathematik, 1995, 1995, 1-18.	0.4	21
103	HOMOGENIZATION OF PERIODIC NONLINEAR MEDIA WITH STIFF AND SOFT INCLUSIONS. Mathematical Models and Methods in Applied Sciences, 1995, 05, 543-564.	1.7	18
104	Lower Semicontinuity Conditions for Functionals on Jumps and Creases. SIAM Journal on Mathematical Analysis, 1995, 26, 1184-1198.	0.9	3
105	Loss of polyconvexity by Homogenization. Archive for Rational Mechanics and Analysis, 1994, 127, 183-190.	1.1	12
106	Remarks on the homogenization of connected media. Nonlinear Analysis: Theory, Methods & Applications, 1994, 22, 391-407.	0.6	9
107	The interaction between bulk energy and surface energy in multiple integrals. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1994, 124, 737-756.	0.8	22
108	Fractal relaxed Dirichlet problems. Manuscripta Mathematica, 1993, 81, 41-56.	0.3	2

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109	A SINGULAR PERTURBATION APPROACH TO VARIATIONAL PROBLEMS IN FRACTURE MECHANICS. Mathematical Models and Methods in Applied Sciences, 1993, 03, 303-340.	1.7	12
110	Almost periodic methods in the theory of homogenization. Applicable Analysis, 1992, 47, 259-277.	0.6	12
111	Homogenization of almost periodic monotone operators. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1992, 9, 399-432.	0.7	21
112	Correctors for the homogenization of almost periodic monotone operators. Asymptotic Analysis, 1991, 5, 47-74.	0.2	5
113	Perimeter on fractal sets. Manuscripta Mathematica, 1991, 72, 5-25.	0.3	1
114	Relaxation of functionals with constraints on the divergence. Annali Dell'Universita Di Ferrara, 1987, 33, 157-177.	0.7	7
115	Homogenization of Ferromagnetic Energies on Poisson Random Sets in the Plane. Archive for Rational Mechanics and Analysis, 0, , 1.	1.1	2