

# Marcello Ponsiglione

## List of Publications by Year in descending order

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35  
papers

710  
citations

623734

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h-index

552781

26  
g-index

35  
all docs

35  
docs citations

35  
times ranked

267  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gradient theory for plasticity via homogenization of discrete dislocations. Journal of the European Mathematical Society, 2010, 12, 1231-1266.	1.4	81
2	Crack Initiation in Brittle Materials. Archive for Rational Mechanics and Analysis, 2008, 188, 309-349.	2.4	57
3	Metastability and Dynamics of Discrete Topological Singularities in Two Dimensions: A $\Gamma$ -Convergence Approach. Archive for Rational Mechanics and Analysis, 2014, 214, 269-330.	2.4	55
4	Elastic Energy Stored in a Crystal Induced by Screw Dislocations: From Discrete to Continuous. SIAM Journal on Mathematical Analysis, 2007, 39, 449-469.	1.9	54
5	Nonlocal Curvature Flows. Archive for Rational Mechanics and Analysis, 2015, 218, 1263-1329.	2.4	52
6	Dielectric breakdown: optimal bounds. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2001, 457, 2317-2335.	2.1	51
7	$\Gamma$ -Convergence Analysis of Systems of Edge Dislocations: the Self Energy Regime. Archive for Rational Mechanics and Analysis, 2012, 206, 885-910.	2.4	41
8	A $\Gamma$ -Convergence Approach to Stability of Unilateral Minimality Properties in Fracture Mechanics and Applications. Archive for Rational Mechanics and Analysis, 2006, 180, 399-447.	2.4	39
9	Ginzburg-Landau functionals and renormalized energy: A revised $\Gamma$ -convergence approach. Journal of Functional Analysis, 2014, 266, 4890-4907.	1.4	36
10	Variational equivalence between Ginzburg-Landau, XY spin systems and screw dislocations energies. Indiana University Mathematics Journal, 2011, 60, 171-208.	0.9	31
11	Non-interpenetration of matter for SBV deformations of hyperelastic brittle materials. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2008, 138, 1019-1041.	1.2	22
12	A Nonlocal Mean Curvature Flow and Its Semi-implicit Time-Discrete Approximation. SIAM Journal on Mathematical Analysis, 2012, 44, 4048-4077.	1.9	22
13	DISCONTINUOUS FINITE ELEMENT APPROXIMATION OF QUASISTATIC CRACK GROWTH IN NONLINEAR ELASTICITY. Mathematical Models and Methods in Applied Sciences, 2006, 16, 77-118.	3.3	20
14	Existence and Uniqueness for a Crystalline Mean Curvature Flow. Communications on Pure and Applied Mathematics, 2017, 70, 1084-1114.	3.1	17
15	A Variational Model for Infinite Perimeter Segmentations Based on Lipschitz Level Set Functions: Denoising while Keeping Finely Oscillatory Boundaries. Multiscale Modeling and Simulation, 2010, 8, 1715-1741.	1.6	15
16	From 1-homogeneous supremal functionals to difference quotients: relaxation and $\Gamma$ -convergence. Calculus of Variations and Partial Differential Equations, 2006, 27, 397-420.	1.7	13
17	Dynamics of discrete screw dislocations on glide directions. Journal of the Mechanics and Physics of Solids, 2016, 92, 87-104.	4.8	13
18	Existence and uniqueness for anisotropic and crystalline mean curvature flows. Journal of the American Mathematical Society, 2019, 32, 779-824.	3.9	13

#	ARTICLE	IF	CITATIONS
19	$\Gamma$ -Convergence Analysis of a Generalized XY Model: Fractional Vortices and String Defects. Communications in Mathematical Physics, 2018, 358, 705-739.	2.2	9
20	A Variational Model for Dislocations at Semi-coherent Interfaces. Journal of Nonlinear Science, 2017, 27, 1435-1461.	2.1	8
21	$\Gamma$ -Convergence of the Heitmann-Radin Sticky Disc Energy to the Crystalline Perimeter. Journal of Nonlinear Science, 2019, 29, 1273-1299.	2.1	8
22	Minimising movements for the motion of discrete screw dislocations along glide directions. Calculus of Variations and Partial Differential Equations, 2017, 56, 1.	1.7	7
23	Generalized crystalline evolutions as limits of flows with smooth anisotropies. Analysis and PDE, 2019, 12, 789-813.	1.4	7
24	Derivation of Linearized Polycrystals from a Two-Dimensional System of Edge Dislocations. SIAM Journal on Mathematical Analysis, 2019, 51, 3956-3981.	1.9	7
25	Long time behavior of discrete volume preserving mean curvature flows. Journal Fur Die Reine Und Angewandte Mathematik, 2022, 2022, 27-51.	0.9	6
26	Homogenization of two-phase metrics and applications. Journal D'Analyse Mathematique, 2007, 103, 157-196.	0.8	5
27	Low energy configurations of topological singularities in two dimensions: A $\Gamma$ -convergence analysis of dipoles. Communications in Contemporary Mathematics, 2020, 22, 1950019.	1.2	5
28	Stability results for nonlocal geometric evolutions and limit cases for fractional mean curvature flows. Communications in Partial Differential Equations, 2021, 46, 1344-1371.	2.2	5
29	Uniform distribution of dislocations in Peierls-Nabarro models for semi-coherent interfaces. Calculus of Variations and Partial Differential Equations, 2020, 59, 1.	1.7	4
30	Attractive Riesz potentials acting on hard spheres. Nonlinearity, 2021, 34, 350-371.	1.4	3
31	The core-radius approach to supercritical fractional perimeters, curvatures and geometric flows. Nonlinear Analysis: Theory, Methods & Applications, 2022, 214, 112585.	1.1	2
32	Vectorial crystallization problems and collective behavior. Journal of Mathematical Biology, 2022, 84, 6.	1.9	2
33	Reprint of: Dynamics of discrete screw dislocations on glide directions. Journal of the Mechanics and Physics of Solids, 2016, 97, 299-316.	4.8	0
34	Variational models in elasticity. Mathematics in Engineering, 2021, 3, 1-4.	0.9	0
35	Failure of crystallization for generalized Lennard-Jones potentials and coarse graining to a rotating stars problem in one dimension. Nonlinear Analysis: Theory, Methods & Applications, 2022, , 113046.	1.1	0