Laurent BÃ©termin

List of Publications by Year
in descending order

20 papers	227 citations	933447 10 h-index	996975 15 g-index
20 all docs	20 docs citations	20 times ranked	62 citing authors

#	Article	IF	Citations
1	On the optimality of the rock-salt structure among lattices with charge distributions. Mathematical Models and Methods in Applied Sciences, 2021, 31, 293-325.	3.3	5
2	Effect of Periodic Arrays of Defects on Lattice Energy Minimizers. Annales Henri Poincare, 2021, 22, 2995-3023.	1.7	4
3	Crystallization to the Square Lattice for a Two-Body Potential. Archive for Rational Mechanics and Analysis, 2021, 240, 987-1053.	2.4	9
4	On energy ground states among crystal lattice structures with prescribed bonds. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 245202.	2.1	4
5	Lattice ground states for embedded-atom models in 2D and 3D. Letters in Mathematical Physics, 2021, 111, 1.	1.1	5
6	Theta Functions and Optimal Lattices for a Grid Cells Model. SIAM Journal on Applied Mathematics, 2021, 81, 1931-1953.	1.8	1
7	Stability of Z_2 configurations in 3D. Nonlinearity, 2021, 34, 8392-8413.	1.4	0
8	Note on Crystallization for Alternating Particle Chains. Journal of Statistical Physics, 2020, 181, 803-815.	1.2	5
9	Minimal Soft Lattice Theta Functions. Constructive Approximation, 2020, 52, 115-138.	3.0	4
10	ON A LATTICE GENERALISATION OF THE LOGARITHM AND A DEFORMATION OF THE DEDEKIND ETA FUNCTION. Bulletin of the Australian Mathematical Society, 2020, 102, 118-125.	0.5	0
11	Minimizing lattice structures for Morse potential energy in two and three dimensions. Journal of Mathematical Physics, 2019, 60, .	1.1	16
12	Optimal and non-optimal lattices for non-completely monotone interaction potentials. Analysis and Mathematical Physics, 2019, 9, 2033-2073.	1.3	14
13	Local optimality of cubic lattices for interaction energies. Analysis and Mathematical Physics, 2019, 9, 403-426.	1.3	18
14	Renormalized Energy and Asymptotic Expansion of Optimal Logarithmic Energy on the Sphere. Constructive Approximation, 2018, 47, 39-74.	3.0	33
15	On Born's Conjecture about Optimal Distribution of Charges for an Infinite Ionic Crystal. Journal of Nonlinear Science, 2018, 28, 1629-1656.	2.1	12
16	Optimal lattice configurations for interacting spatially extended particles. Letters in Mathematical Physics, 2018, 108, 2213-2228.	1.1	11
17	Local variational study of 2d lattice energies and application to Lennard–Jones type interactions. Nonlinearity, 2018, 31, 3973-4005.	1.4	18
18	Dimension reduction techniques for the minimization of theta functions on lattices. Journal of Mathematical Physics, 2017, 58, .	1.1	19

#	Article	IF	Citations
19	Two-Dimensional Theta Functions and Crystallization among Bravais Lattices. SIAM Journal on Mathematical Analysis, 2016, 48, 3236-3269.	1.9	28
20	Minimization of energy per particle among Bravais lattices in $\mathbb{R}^2$: Lennard–Jones and Thomas–Fermi cases. Communications in Contemporary Mathematics, 2015, 17, 1450049.	1.2	21