

Matthieu Marechal

List of Publications by Year in descending order

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papers

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430874

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all docs

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docs citations

29
times ranked

879
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient Method for Predicting Crystal Structures at Finite Temperature: Variable Box Shape Simulations. <i>Physical Review Letters</i> , 2009, 103, 188302.	7.8	108
2	Vacancy-stabilized crystalline order in hard cubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 17886-17890.	7.1	105
3	Phase Behavior and Structure of a New Colloidal Model System of Bowl-Shaped Particles. <i>Nano Letters</i> , 2010, 10, 1907-1911.	9.1	95
4	Stability of orientationally disordered crystal structures of colloidal hard dumbbells. <i>Physical Review E</i> , 2008, 77, 061405.	2.1	66
5	Phase behavior of hard colloidal platelets using free energy calculations. <i>Journal of Chemical Physics</i> , 2011, 134, 094501.	3.0	59
6	Crystal-structure prediction via the Floppy-Box Monte Carlo algorithm: Method and application to hard (non)convex particles. <i>Journal of Chemical Physics</i> , 2012, 137, 214101.	3.0	52
7	Freezing of parallel hard cubes with rounded edges. <i>Journal of Chemical Physics</i> , 2012, 136, 144506.	3.0	43
8	Packing Confined Hard Spheres Denser with Adaptive Prism Phases. <i>Physical Review Letters</i> , 2012, 109, 218301.	7.8	42
9	Phase behavior and structure of colloidal bowl-shaped particles: Simulations. <i>Physical Review E</i> , 2010, 82, 031405.	2.1	40
10	Stacking in sediments of colloidal hard spheres. <i>Journal of Chemical Physics</i> , 2011, 135, 034510.	3.0	38
11	Fundamental measure theory for non-spherical hard particles: predicting liquid crystal properties from the particle shape. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 244003.	1.8	36
12	Density Functional Theory for Hard Polyhedra. <i>Physical Review Letters</i> , 2013, 110, 137801.	7.8	32
13	Crystallization of colloidal hard spheres under gravity. <i>Physical Review E</i> , 2007, 75, 061404.	2.1	28
14	Fundamental measure theory for smectic phases: Scaling behavior and higher order terms. <i>Journal of Chemical Physics</i> , 2014, 141, 064103.	3.0	28
15	Inhomogeneous fluids of colloidal hard dumbbells: Fundamental measure theory and Monte Carlo simulations. <i>Journal of Chemical Physics</i> , 2011, 135, 234510.	3.0	27
16	Rhombic Preordering on a Square Substrate. <i>Physical Review Letters</i> , 2013, 110, 118301.	7.8	27
17	Frustration of the Isotropic-Columnar Phase Transition of Colloidal Hard Platelets by a Transient Cubatic Phase. <i>Physical Review Letters</i> , 2012, 108, 206101.	7.8	22
18	Fundamental mixed measure theory for non-spherical colloids. <i>Europhysics Letters</i> , 2015, 109, 26003.	2.0	22

#	ARTICLE	IF	CITATIONS
19	Density functional theory and simulations of colloidal triangular prisms. <i>Journal of Chemical Physics</i> , 2017, 146, 124905.	3.0	16
20	Purely entropic self-assembly of the bicontinuous lamellar gyroid phase in equilibrium hard-pear systems. <i>Interface Focus</i> , 2017, 7, 20160161.	3.0	15
21	Simulation of a hard-spherocylinder liquid crystal with the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si40.gif" display="inline" overflow="scroll">\langle \text{mml:mi mathvariant="script">pe} \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$. <i>Computer Physics Communications</i> , 2014, 185, 3156-3161.	7.5	13
22	Colloidal hard dumbbells under gravity: structure and crystallization. <i>Soft Matter</i> , 2011, 7, 1397-1408.	2.7	12
23	Elasticity of nematic phases with fundamental measure theory. <i>Physical Review E</i> , 2015, 91, 052501.	2.1	12
24	Deriving fundamental measure theory from the virial series: Consistency with the zero-dimensional limit. <i>Physical Review E</i> , 2014, 90, 042131.	2.1	10
25	Director field in plastic crystals. <i>Europhysics Letters</i> , 2012, 99, 38005.	2.0	6
26	Self-assembly and entropic effects in pear-shaped colloid systems. I. Shape sensitivity of bilayer phases in colloidal pear-shaped particle systems. <i>Journal of Chemical Physics</i> , 2020, 153, 034903.	3.0	6
27	Density functional theory for hard uniaxial particles: Complex ordering of pear-shaped and spheroidal particles near a substrate. <i>Journal of Chemical Physics</i> , 2018, 148, 124104.	3.0	5
28	Self-assembly and entropic effects in pear-shaped colloid systems. II. Depletion attraction of pear-shaped particles in a hard-sphere solvent. <i>Journal of Chemical Physics</i> , 2020, 153, 034904.	3.0	5
29	Dynamical states in driven colloidal liquid crystals. <i>Journal of Chemical Physics</i> , 2014, 141, 194903.	3.0	2