

Matteo Barborini

List of Publications by Year in descending order

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papers

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932766

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all docs

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16
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370
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon nanotubes as excitonic insulators. <i>Nature Communications</i> , 2017, 8, 1461.	5.8	51
2	Structural Optimization by Quantum Monte Carlo: Investigating the Low-Lying Excited States of Ethylene. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 1260-1269.	2.3	46
3	<scp>TurboRVB</scp>: A many-body toolkit for <i>ab initio</i> electronic simulations by quantum Monte Carlo. <i>Journal of Chemical Physics</i> , 2020, 152, 204121.	1.2	37
4	Reaction pathways by quantum Monte Carlo: Insight on the torsion barrier of 1,3-butadiene, and the conrotatory ring opening of cyclobutene. <i>Journal of Chemical Physics</i> , 2012, 137, 224309.	1.2	35
5	Molecular Electrical Properties from Quantum Monte Carlo Calculations: Application to Ethyne. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 1952-1962.	2.3	24
6	Ground State Geometries of Polyacetylene Chains from Many-Particle Quantum Mechanics. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 4109-4118.	2.3	23
7	Investigating Disjoint Non-Kekulé Diradicals with Quantum Monte Carlo: The Tetramethyleneethane Molecule through the Jastrow Antisymmetrized Geminal Power Wave Function. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 5696-5704.	2.3	18
8	π-Conjugation in <i>trans</i> -1,3-Butadiene: Static and Dynamical Electronic Correlations Described through Quantum Monte Carlo. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 508-517.	2.3	16
9	Neutral, Anionic, and Cationic Manganese Dimers through Density Functional Theory. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1716-1726.	1.1	12
10	Kohn-Sham orbitals and potentials from quantum Monte Carlo molecular densities. <i>Journal of Chemical Physics</i> , 2014, 140, 054102.	1.2	10
11	Geometries of low spin states of multi-centre transition metal complexes through extended broken symmetry variational Monte Carlo. <i>Journal of Chemical Physics</i> , 2016, 145, 124107.	1.2	7
12	Correlated Wave Functions for Electron-Positron Interactions in Atoms and Molecules. <i>Journal of Chemical Theory and Computation</i> , 2022, 18, 2267-2280.	2.3	7
13	Correlation Effects in Scanning Tunneling Microscopy Images of Molecules Revealed by Quantum Monte Carlo. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 5339-5349.	2.3	5
14	Role of Electron Correlation along the Water Splitting Reaction. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 5803-5810.	2.3	5
15	Excitonic-insulator instability and Peierls distortion in one-dimensional semimetals. <i>Physical Review B</i> , 2022, 105, .	1.1	2
16	Angle-resolved photoemission spectroscopy from first-principles quantum Monte Carlo. <i>Journal of Chemical Physics</i> , 2018, 149, 154102.	1.2	1