Michael A Sentef

List of Publications by Year
in descending order

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74 papers	2,935 citations	159585 30 h-index	168389 53 g-index
74 all docs	74 docs citations	74 times ranked	2131 citing authors

#	Article	IF	Citations
1	Creating stable Floquetâ€“Weyl semimetals by laser-driving of 3D Dirac materials. Nature Communications, 2017, 8, 13940.	12.8	255
2	Theory of Floquet band formation and local pseudospin textures in pump-probe photoemission of graphene. Nature Communications, 2015, 6, 7047.	12.8	203
3	Colloquium: Nonthermal pathways to ultrafast control in quantum materials. Reviews of Modern Physics, 2021, 93, .	45.6	175
4	Cavity quantum-electrodynamical polaritonically enhanced electron-phonon coupling and its influence on superconductivity. Science Advances, 2018, 4, eaau6969.	10.3	140
5	Theory of light-enhanced phonon-mediated superconductivity. Physical Review B, 2016, 93, .	3.2	119
6	Ultrafast Modification of Hubbard<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>U</mml:mi></mml:mrow></mml:math>in a Strongly Correlated Material:AbÂinitioHigh-Harmonic Generation in NiO. Physical Review Letters, 2018, 121, 097402.	7.8	118
7	Microscopic theory for the light-induced anomalous Hall effect in graphene. Physical Review B, 2019, 99, .	3.2	117
8	Examining Electron-Boson Coupling Using Time-Resolved Spectroscopy. Physical Review X, 2013, 3, .	8.9	82
9	Light-enhanced electron-phonon coupling from nonlinear electron-phonon coupling. Physical Review B, 2017, 95, .	3.2	80
10	Direct observation of Higgs mode oscillations in the pump-probe photoemission spectra of electron-phonon mediated superconductors. Physical Review B, 2015, 92, .	3.2	78
11	Spin transport in Heisenberg antiferromagnets in two and three dimensions. Physical Review B, 2007, 75, .	3.2	74
12	Theory of Laser-Controlled Competing Superconducting and Charge Orders. Physical Review Letters, 2017, 118, 087002.	7.8	74
13	Cavity quantum materials. Applied Physics Reviews, 2022, 9, .	11.3	65
14	Energy dissipation from a correlated system driven out of equilibrium. Nature Communications, 2016, 7, 13761.	12.8	63
15	Photomolecular High-Temperature Superconductivity. Physical Review X, 2020, 10, .	8.9	59
16	Local Berry curvature signatures in dichroic angle-resolved photoelectron spectroscopy from two-dimensional materials. Science Advances, 2020, 6, eaay2730.	10.3	57
17	Topological Floquet engineering of twisted bilayer graphene. Physical Review Research, 2019, 1, .	3.6	56
18	The 2021 ultrafast spectroscopic probes of condensed matter roadmap. Journal of Physics Condensed Matter, 2021, 33, 353001.	1.8	55

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19	Universal optical control of chiral superconductors and Majorana modes. Nature Physics, 2019, 15, 766-770.	16.7	48
20	Cavity quantum electrodynamical Chern insulator: Towards light-induced quantized anomalous Hall effect in graphene. Physical Review B, 2019, 99, .	3.2	46
21	Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy. Physical Review B, 2014, 90, .	3.2	45
22	Enhanced electron-phonon coupling in graphene with periodically distorted lattice. Physical Review B, 2017, 95, .	3.2	45
23	Correlations in a band insulator. Physical Review B, 2009, 80, .	3.2	41
24	Review of the Theoretical Description of Timeâ€Resolved Angleâ€Resolved Photoemission Spectroscopy in Electronâ€Phonon Mediated Superconductors. Annalen Der Physik, 2017, 529, 1600235.	2.4	41
25	All-optical nonequilibrium pathway to stabilising magnetic Weyl semimetals in pyrochlore iridates. Nature Communications, 2018, 9, 4452.	12.8	38
26	Ultrafast dynamical Lifshitz transition. Science Advances, 2021, 7, .	10.3	38
27	Quantum to classical crossover of Floquet engineering in correlated quantum systems. Physical Review Research, 2020, 2, .	3.6	37
28	Mapping of unoccupied states and relevant bosonic modes via the time-dependent momentum distribution. Physical Review B, 2013, 87, .	3.2	36
29	Transient Charge and Energy Flow in the Wide-Band Limit. Journal of Chemical Theory and Computation, 2018, 14, 2495-2504.	5.3	34
30	Light-induced anomalous Hall effect in massless Dirac fermion systems and topological insulators with dissipation. New Journal of Physics, 2019, 21, 093005.	2.9	34
31	Quantum Electrodynamical Bloch Theory with Homogeneous Magnetic Fields. Physical Review Letters, 2019, 123, 047202.	7.8	30
32	How Circular Dichroism in Time- and Angle-Resolved Photoemission Can Be Used to Spectroscopically Detect Transient Topological States in Graphene. Physical Review X, 2020, 10, .	8.9	29
33	Dynamical Order and Superconductivity in a Frustrated Many-Body System. Physical Review Letters, 2020, 125, 137001.	7.8	29
34	Light-matter coupling and quantum geometry in moirÃ© materials. Physical Review B, 2021, 104, .	3.2	29
35	Superconducting Phase and Pairing Fluctuations in the Half-Filled Two-Dimensional Hubbard Model. Physical Review Letters, 2011, 107, 126401.	7.8	28
36	Electron-Mediated Relaxation Following Ultrafast Pumping of Strongly Correlated Materials: Model Evidence of a Correlation-Tuned Crossover between Thermal and Nonthermal States. Physical Review Letters, 2013, 111, 077401.	7.8	27

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37	Doping evolution of the oxygen<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>K</mml:mi></mml:math>-edge x-ray absorption spectra of cuprate superconductors using a three-orbital Hubbard model. Physical Review B, 2013, 87, .	3.2	25
38	Density-Matrix Embedding Theory Study of the One-Dimensional Hubbardâ€“Holstein Model. Journal of Chemical Theory and Computation, 2019, 15, 2221-2232.	5.3	22
39	Comparing the generalized Kadanoff-Baym ansatz with the full Kadanoff-Baym equations for an excitonic insulator out of equilibrium. Physical Review B, 2020, 102, .	3.2	22
40	Light-induced <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> -wave superconductivity through Floquet-engineered Fermi surfaces in cuprates. Physical Review B, 2019, 100, .	3.2	20
41	Polaritonic Hofstadter butterfly and cavity control of the quantized Hall conductance. Physical Review B, 2022, 105, .	3.2	20
42	Distinguishing Majorana zero modes from impurity states through time-resolved transport. New Journal of Physics, 2019, 21, 103038.	2.9	19
43	Magnon trap by chiral spin pumping. Physical Review B, 2020, 102, .	3.2	18
44	Electronâ€“phonon-driven three-dimensional metallicity in an insulating cuprate. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6409-6416.	7.1	18
45	Light-induced topological magnons in two-dimensional van der Waals magnets. SciPost Physics, 2020, 9, .	4.9	18
46	Gauge invariance in the theoretical description of time-resolved angle-resolved pump/probe photoemission spectroscopy. Physica Scripta, 2015, T165, 014012.	2.5	17
47	Adiabatic Preparation of a Correlated Symmetryâ€Broken Initial State with the Generalized Kadanoffâ€“Baym Ansatz. Physica Status Solidi (B): Basic Research, 2019, 256, 1800469.	1.5	17
48	Quantum Floquet engineering with an exactly solvable tight-binding chain in a cavity. Communications Physics, 2022, 5, .	5.3	16
49	Charge and spin criticality for the continuous Mott transition in a two-dimensional organic conductor. Physical Review B, 2011, 84, .	3.2	14
50	Charge Density Wave Melting in One-Dimensional Wires with Femtosecond Subgap Excitation. Physical Review Letters, 2019, 123, 036405.	7.8	13
51	Nematicity Arising from a Chiral Superconducting Ground State in Magic-Angle Twisted Bilayer Graphene under In-Plane Magnetic Fields. Physical Review Letters, 2021, 127, 127001.	7.8	13
52	Ultrafast transient absorption spectroscopy of the charge-transfer insulator NiO: Beyond the dynamical Franz-Keldysh effect. Physical Review B, 2020, 102, .	3.2	12
53	Focusing quantum states on surfaces: A route towards the design of ultrasmall electronic devices. Physical Review B, 2006, 74, .	3.2	11
54	All-optical generation of antiferromagnetic magnon currents via the magnon circular photogalvanic effect. Physical Review B, 2021, 104, .	3.2	10

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55	Analytical solution for the steady states of the driven Hubbard model. Physical Review B, 2021, 103, .	3.2	9
56	Optical manipulation of domains in chiral topological superconductors. Physical Review Research, 2021, 3, .	3.6	9
57	Role of stochastic noise and generalization error in the time propagation of neural-network quantum states. SciPost Physics, 2022, 12, .	4.9	9
58	Electron Traversal Times in Disordered Graphene Nanoribbons. Entropy, 2019, 21, 737.	2.2	8
59	Time-resolved impurity-invisibility in graphene nanoribbons. Nanoscale, 2019, 11, 12296-12304.	5.6	7
60	Efficient computation of the second-Born self-energy using tensor-contraction operations. Journal of Chemical Physics, 2019, 151, 174110.	3.0	7
61	Spin-Wave Doppler Shift by Magnon Drag in Magnetic Insulators. Physical Review Letters, 2021, 126, 137202.	7.8	7
62	Theory of subcycle time-resolved photoemission: Application to terahertz photodressing in graphene. Journal of Electron Spectroscopy and Related Phenomena, 2021, 253, 147121.	1.7	7
63	Quantum nonlinear phononics route towards nonequilibrium materials engineering: Melting dynamics of a ferrielectric charge density wave. Physical Review B, 2018, 98, .	3.2	6
64	Floquet-engineered light-cone spreading of correlations in a driven quantum chain. Physical Review B, 2019, 100, .	3.2	6
65	Lieb's Theorem and Maximum Entropy Condensates. Quantum - the Open Journal for Quantum Science, 0, 5, 610.	0.0	6
66	Coherent Modulation of Quasiparticle Scattering Rates in a Photoexcited Charge-Density-Wave System. Physical Review Letters, 2022, 128, 026406.	7.8	5
67	Cavity engineering of Hubbard U via phonon polaritons. JPhys Materials, 2022, 5, 024006.	4.2	5
68	Quantum walk versus classical wave: Distinguishing ground states of quantum magnets by spacetime dynamics. Physical Review B, 2020, 102, .	3.2	4
69	Direct detection of odd-frequency superconductivity via time- and angle-resolved photoelectron fluctuation spectroscopy. Physical Review Research, 2021, 3, .	3.6	4
70	Resonant laser excitation and time-domain imaging of chiral topological polariton edge states. Physical Review Research, 2020, 2, .	3.6	3
71	Atomic forces mapped out by lasers. Nature, 2020, 583, 35-36.	27.8	2
72	Nonequilibrium phase transition in a driven-dissipative quantum antiferromagnet. Physical Review Research, 2022, 4, .	3.6	1

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73	Material-Specific Investigations of Correlated Electron Systems. , 2010, , 599-612.		0
74	Publisher's Note: Effect of dynamical spectral weight redistribution on effective interactions in time-resolved spectroscopy [Phys. Rev. B90, 075126 (2014)]. Physical Review B, 2014, 90, .	3.2	0