Joseph Orenstein

List of Publications by Year
in descending order

64	6,158	109321	123424
papers	citations	35 h-index	61 g-index

66	66	66	5932
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Observation of a phase transition within the domain walls of ferromagnetic Co3Sn2S2. Nature Communications, 2022, 13, .	12.8	17
2	Topology and Symmetry of Quantum Materials via Nonlinear Optical Responses. Annual Review of Condensed Matter Physics, 2021, 12, 247-272.	14.5	54
3	Current-induced second harmonic generation in inversion-symmetric Dirac and Weyl semimetals. Physical Review B, 2021, 104, .	3.2	25
4	Direct Measurement of Helicoid Surface States in RhSi Using Nonlinear Optics. Physical Review Letters, 2021, 127, 157405.	7.8	16
5	Nonlinear nanoelectrodynamics of a Weyl metal. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
6	Mapping domain-wall topology in the magnetic Weyl semimetal CeAlSi. Physical Review B, 2021, 104, .	3.2	17
7	Electrical switching in a magnetically intercalated transition metal dichalcogenide. Nature Materials, 2020, 19, 153-157.	27.5	72
8	Helicity-dependent photocurrents in the chiral Weyl semimetal RhSi. Science Advances, 2020, 6, eaba0509.	10.3	129
9	Three-state nematicity in the triangular lattice antiferromagnet Fe1/3NbS2. Nature Materials, 2020, 19, 1062-1067.	27.5	47
10	Diagrammatic approach to nonlinear optical response with application to Weyl semimetals. Physical Review B, 2019, 99, .	3.2	110
11	Large magneto-optical Kerr effect and imaging of magnetic octupole domains in an antiferromagnetic metal. Nature Photonics, 2018, 12, 73-78.	31.4	260
12	Field evolution of magnons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow><mml:mi>Fe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> by high-resolution polarized terahertz spectroscopy. Physical Review B, 2018, 98, .	3.2	41
13	Resonance-enhanced optical nonlinearity in the Weyl semimetal TaAs. Physical Review B, 2018, 98, .	3.2	83
14	Imaging Anomalous Nematic Order and Strain in Optimally Doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>BaFe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mi>As</mml:mi><mml:mo>,</mml:mo><mml:mi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 212 Td (mat	7.8	29
15	Giant anisotropic nonlinear optical response in Weyl semimetals. , 2018, , .		1
16	Giant anisotropic nonlinear optical response in transition metal monopnictide Weyl semimetals. Nature Physics, 2017, 13, 350-355.	16.7	325
17	Antiferromagnetic Resonance and Terahertz Continuum in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow Physical Review Letters, 2017, 119, 227201.	7.8	85
18	The rate of quasiparticle recombination probes the onset of coherence in cuprate superconductors. Scientific Reports, 2016, 6, 23610.	3.3	27

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19	Semiclassical theory of nonlinear magneto-optical responses with applications to topological Dirac/Weyl semimetals. Physical Review B, 2016, 94, .	3.2	132
20	Phase transition beneath the superconducting dome inBaFe2(As1âˆ’xPx)2. Physical Review B, 2015, 92, .	3.2	16
21	Photoexcited states of the harmonic honeycomb iridate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi><mml:mo>â€²</mml:mo><mml:msub><mml:mi mathvariant="normal">Li</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">IrO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 92, .	3.2	15
22	Optical Gyrotropy from Axion Electrodynamics in Momentum Space. Physical Review Letters, 2015, 115, 117403.	7.8	54
23	Terahertz time-domain spectroscopy of transient metallic and superconducting states. Physical Review B, 2015, 92, .	3.2	34
24	Resonant magneto-optic Kerr effect in the magnetic topological insulator<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Cr</mml:mi><mml:mo>:</mml:mo><mml:mo>(</mml:mo> Physical Review B, 2015, 92, .	3.2	7
25	Kerr effect as evidence of gyrotropic order in the cuprates. Physical Review B, 2013, 87, .	3.2	67
26	Berry phase mechanism for optical gyrotropy in stripe-ordered cuprates. Physical Review B, 2013, 87, .	3.2	58
27	New collective mode in YBa<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>O<mml:math	3.2	62
28	Time-Resolved Optical Reflectivity of the Electron-Doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Nd</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â€“</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math><mml:math Superconductor: Evidence for an Interplay between Competing Orders. Physical Review Letters, 2013, 110, 217002.	7.8	35
29	Doppler velocimetry of spin and charge currents in the 2D Fermi gas. EPJ Web of Conferences, 2013, 41, 03017.	0.3	0
30	Coherent Propagation of Spin Helices in a Quantum-Well Confined Electron Gas. Physical Review Letters, 2012, 109, 246603.	7.8	22
31	Doppler velocimetry of spin propagation in a two-dimensional electron gas. Nature Physics, 2012, 8, 153-157.	16.7	33
32	Observation of Coherent Helimagnons and Gilbert Damping in an Itinerant Magnet. Physical Review Letters, 2012, 109, 247204.	7.8	19
33	Optical Nonreciprocity in Magnetic Structures Related to High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub></mml:math>Superconductors. Physical Review Letters, 2011, 107, 067002.	7.8	40
34	From a Single-Band Metal to a High-Temperature Superconductor via Two Thermal Phase Transitions. Science, 2011, 331, 1579-1583.	12.6	292
35	Determination of the spin-flip time in ferromagnetic SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>from time-resolved Kerr measurements. Physical Review B, 2011, 83, .	3.2	15
36	Breaking through to the other side. Nature Physics, 2010, 6, 566-567.	16.7	10

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37	Confinement-Induced Berry Phase and Helicity-Dependent Photocurrents. Physical Review Letters, 2010, 105, 026805.	7.8	173
38	Effective thermal boundary resistance from thermal decoupling of magnons and phonons in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrRuO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:r films. Physical Review B, 2010, 82, .	3.2	7
39	Random walk approach to spin dynamics in a two-dimensional electron gas with spin-orbit coupling. Physical Review B, 2010, 82, .	3.2	27
40	Magnon sidebands and spin-charge coupling in bismuth ferrite probed by nonlinear optical spectroscopy. Physical Review B, 2009, 79, .	3.2	82
41	Spin-charge-lattice coupling through resonant multimagnon excitations in multiferroic BiFeO3. Applied Physics Letters, 2009, 94, 161905.	3.3	43
42	Emergence of the persistent spin helix in semiconductor quantum wells. Nature, 2009, 458, 610-613.	27.8	474
43	Linear and nonlinear optical properties of BiFeO3. Applied Physics Letters, 2008, 92, .	3.3	213
44	Two-phonon coupling to the antiferromagnetic phase transition in multiferroic BiFeO3. Applied Physics Letters, 2008, 92, .	3.3	116
45	Adsorption-controlled molecular-beam epitaxial growth of BiFeO3. Applied Physics Letters, 2007, 91, .	3.3	91
46	Nondiffusive Spin Dynamics in a Two-Dimensional Electron Gas. Physical Review Letters, 2007, 98, 076604.	7.8	79
47	Exact SU(2) Symmetry and Persistent Spin Helix in a Spin-Orbit Coupled System. Physical Review Letters, 2006, 97, 236601.	7.8	467
48	Superconducting fluctuations in Bi2Sr2Ca1-xDyxCu2O8+Î´ as seen by terahertz spectroscopy. Annalen Der Physik, 2006, 15, 596-605.	2.4	28
49	Observation of spin Coulomb drag in a two-dimensional electron gas. Nature, 2005, 437, 1330-1333.	27.8	201
50	Single-quasiparticle stability and quasiparticle-pair decay inYBa2Cu3O6.5. Physical Review B, 2004, 70, .	3.2	89
51	Transient Gratings Formed by Nonequilibrium Quasiparticles in YBa2Cu3O6.5. Journal of Superconductivity and Novel Magnetism, 2004, 17, 117-120.	0.5	2
52	Nonequilibrium THz conductivity of Bi2Sr2CaCu2O8+Î´. Physica C: Superconductivity and Its Applications, 2004, 408-410, 729-730.	1.2	10
53	Absolute phase measurement in heterodyne detection of transient gratings. Optics Letters, 2004, 29, 2109.	3.3	32
54	Optical conductivity of a superfluid density wave. Physica C: Superconductivity and Its Applications, 2003, 390, 243-248.	1.2	12

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55	Photoinduced Changes of Reflectivity in Single Crystals ofYBa2Cu3O6.5(Ortho II). Physical Review Letters, 2002, 88, 137001.	7.8	99
56	Low-temperature AC conductivity of Bi2Sr2CaCu2O8+Î´. Physica B: Condensed Matter, 2000, 280, 212-213.	2.7	10
57	Nodal Quasiparticle Lifetime in the Superconducting State ofBi2Sr2CaCu2O8+Î´. Physical Review Letters, 2000, 85, 2569-2572.	7.8	105
58	Advances in the Physics of High-Temperature Superconductivity. Science, 2000, 288, 468-474.	12.6	786
59	Vanishing of phase coherence in underdoped Bi2Sr2CaCu2O8+Î´. Nature, 1999, 398, 221-223.	27.8	477
60	Terahertz time-domain spectroscopy. , 1998, , 7-50.		135
61	Coherent terahertz spectroscopy of the vortex-state of cuprate superconductors. Ferroelectrics, 1996, 177, 33-41.	0.6	0
62	Phase-Sensitive Measurements of Vortex Dynamics in the Terahertz Domain. Physical Review Letters, 1995, 74, 3265-3268.	7.8	63
63	Observation of the Quasiparticle Hall Effect in SuperconductingYBa2Cu3O7â^'Î´. Physical Review Letters, 1994, 73, 1537-1540.	7.8	70
64	Superconducting gap excitations in MgB/sub 2/ revealed via time-domain thz spectroscopy. , 0, , .		0