

Fabrizio Carbone

List of Publications by Year in descending order

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63
papers

3,199
citations

218381

26
h-index

149479

56
g-index

68
all docs

68
docs citations

68
times ranked

3742
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Visualisation of Skyrmion Lattice Defect Alignment at Grain Boundaries. <i>Nanoscale Research Letters</i> , 2022, 17, 20.	3.1	1
2	Dynamical Control of Nuclear Isomer Depletion via Electron Vortex Beams. <i>Physical Review Letters</i> , 2022, 128, 162501.	2.9	5
3	Nuclear Excitation by Electron Capture in Excited Ions. <i>Physical Review Letters</i> , 2022, 128, .	2.9	9
4	Resonant Inelastic X-Ray Scattering Study of Electron-Exciton Coupling in High- T_c Cuprates. <i>Physical Review X</i> , 2022, 12, .	2.8	3
5	Ultrafast Momentum-Resolved Free-Electron Probing of Optically Pumped Plasmon Thermal Dynamics. <i>ACS Photonics</i> , 2021, 8, 614-624.	3.2	4
6	An electron walks into a quantum barâ€¦. <i>Science</i> , 2021, 373, 1309-1310.	6.0	1
7	Charge Dynamics Electron Microscopy. , 2021, , .		2
8	Longitudinal and transverse modulation of electron wave function with light, and its application to electron microscopy. , 2021, , .		0
9	Nanoscale-femtosecond dielectric response of Mott insulators captured by two-color near-field ultrafast electron microscopy. <i>Nature Communications</i> , 2020, 11, 5770.	5.8	27
10	Melting of a skyrmion lattice to a skyrmion liquid via a hexatic phase. <i>Nature Nanotechnology</i> , 2020, 15, 761-767.	15.6	63
11	The quantum future of microscopy: Wave function engineering of electrons, ions, and nuclei. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	26
12	Electronâ€“phonon-driven three-dimensional metallicity in an insulating cuprate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6409-6416.	3.3	18
13	Energy domain versus time domain precursor fluctuations above the Verwey transition in magnetite. <i>Physical Review B</i> , 2020, 101, .	1.1	3
14	Spatio-temporal shaping of a free-electron wave function via coherent lightâ€“electron interaction. <i>Rivista Del Nuovo Cimento</i> , 2020, 43, 567-597.	2.0	24
15	Holographic imaging of electromagnetic fields via electron-light quantum interference. <i>Science Advances</i> , 2019, 5, eaav8358.	4.7	58
16	Ultrafast generation and control of an electron vortex beam via chiral plasmonic near fields. <i>Nature Materials</i> , 2019, 18, 573-579.	13.3	120
17	Local photo-mechanical stiffness revealed in gold nanoparticles supracrystals by ultrafast small-angle electron diffraction. <i>Structural Dynamics</i> , 2019, 6, 024304.	0.9	1
18	Stacking transition in rhombohedral graphite. <i>Frontiers of Physics</i> , 2019, 14, 1.	2.4	28

#	ARTICLE	IF	CITATIONS
19	Shedding Light on Quantum Materials via Ultrafast Broadband Laser Spectroscopy. , 2019, , .		0
20	meV Resolution in Laser-Assisted Energy-Filtered Transmission Electron Microscopy. ACS Photonics, 2018, 5, 759-764.	3.2	70
21	Laser-Induced Skyrmion Writing and Erasing in an Ultrafast Cryo-Lorentz Transmission Electron Microscope. Physical Review Letters, 2018, 120, 117201.	2.9	115
22	Lattice-mediated magnetic order melting in TbMnO_3 . Physical Review B, 2018, 97, .		
23	Light scattering from the critical modes of the Verwey transition in magnetite. Physical Review B, 2018, 98, .	1.1	7
24	In Situ Electric Field Skyrmion Creation in Magnetoelectric Cu_2OSeO_3 . Nano Letters, 2018, 18, 5167-5171.	4.5	43
25	Ultrafast electron energy-loss spectroscopy in transmission electron microscopy. MRS Bulletin, 2018, 43, 497-503.	1.7	22
26	Attosecond coherent control of free-electron wave functions using semi-infinite light fields. Nature Communications, 2018, 9, 2694.	5.8	136
27	Investigating Skyrmions Using Lorentz Transmission Electron Microscopy. Microscopy and Microanalysis, 2018, 24, 932-933.	0.2	1
28	Clocking the onset of bilayer coherence in a high- T_c cuprate. Physical Review B, 2017, 95, .		
29	Magnetic Skyrmions and Skyrmion Clusters in the Helical Phase of Cu_2OSeO_3 . Physical Review Letters, 2017, 119, 137201.	2.9	46
30	Design and implementation of an optimal laser pulse front tilting scheme for ultrafast electron diffraction in reflection geometry with high temporal resolution. Structural Dynamics, 2017, 4, 044032.	0.9	4
31	Ultrafast atomic-scale visualization of acoustic phonons generated by optically excited quantum dots. Structural Dynamics, 2017, 4, 044034.	0.9	7
32	Real-Time Observation of Phonon-Mediated Interband Scattering in MgB_2 . Physical Review Letters, 2017, 119, 097002.	2.9	16
33	Coherent generation of symmetry-forbidden phonons by light-induced electron-phonon interactions in magnetite. Physical Review B, 2017, 96, .	1.1	14
34	Mapping the lattice dynamical anomaly of the order parameters across the Verwey transition in magnetite. New Journal of Physics, 2017, 19, 103013.	1.2	10
35	Femtosecond manipulation of spins, charges, and ions in nanostructures, thin films, and surfaces. Structural Dynamics, 2017, 4, 061504.	0.9	1
36	A versatile setup for ultrafast broadband optical spectroscopy of coherent collective modes in strongly correlated quantum systems. Structural Dynamics, 2016, 3, 064301.	0.9	11

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37	Order/Disorder Dynamics in a Dodecanethiol-Capped Gold Nanoparticles Supracrystal by Small-Angle Ultrafast Electron Diffraction. Nano Letters, 2016, 16, 2705-2713.	4.5	39
38	Probing the coupling between a doublon excitation and the charge-density wave in TaS_2 using ultrafast optical spectroscopy. Physical Review B, 2016, 94, .	1.1	1
39	Electron diffraction by plasmon waves. Physical Review B, 2016, 94, .	1.1	45
40	Imaging and controlling plasmonic interference fields at buried interfaces. Nature Communications, 2016, 7, 13156.	5.8	58
41	Light-induced Dynamics of a Dodecanethiol-capped Gold Nanoparticles Supracrystal Revealed by Ultrafast Small-angle Electron Diffraction. , 2016, , .		2
42	Probing the electron-phonon interaction in correlated systems with coherent lattice fluctuation spectroscopy. Physical Review B, 2015, 92, .	1.1	16
43	The role of the coherence in the cross-correlation analysis of diffraction patterns from two-dimensional dense mono-disperse systems. Scientific Reports, 2015, 5, 16573.	1.6	21
44	Dynamics deep from the core. Structural Dynamics, 2015, 2, 020601.	0.9	6
45	Filming the formation and fluctuation of skyrmion domains by cryo-Lorentz transmission electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14212-14217.	3.3	68
46	Simultaneous observation of the quantization and the interference pattern of a plasmonic near-field. Nature Communications, 2015, 6, 6407.	5.8	225
47	A proposal for fs-electron microscopy experiments on high-energy excitations in solids. Micron, 2014, 63, 40-46.	1.1	7
48	Ultrafast structural and electronic dynamics of the metallic phase in a layered manganite. Structural Dynamics, 2014, 1, 014501.	0.9	29
49	Design and implementation of a fs-resolved transmission electron microscope based on thermionic gun technology. Chemical Physics, 2013, 423, 79-84.	0.9	112
50	Coupling of a high-energy excitation to superconducting quasiparticles in a cuprate from coherent charge fluctuation spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4539-4544.	3.3	86
51	Quantitative imaging of flux vortices in the type-II superconductor MgB_2 using cryo-Lorentz transmission electron microscopy. Physical Review B, 2013, 88, .	1.1	10
52	Evidence for a Peierls phase-transition in a three-dimensional multiple charge-density waves solid. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5603-5608.	3.3	28
53	Design and implementation of a flexible beamline for fs electron diffraction experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 691, 113-122.	0.7	41
54	A perspective on novel sources of ultrashort electron and X-ray pulses. Chemical Physics, 2012, 392, 1-9.	0.9	51

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55	Modern electron microscopy resolved in space, energy and time. EPJ Applied Physics, 2011, 54, 33503.	0.3	10
56	Femtosecond carrier dynamics in bulk graphite and graphene paper. Chemical Physics Letters, 2011, 504, 37-40.	1.2	46
57	The interplay between structure and orbitals in the chemical bonding of graphite. Chemical Physics Letters, 2010, 496, 291-295.	1.2	21
58	Quantum Study of Laser-Induced Initial Activation of Graphite-to-Diamond Conversion. Journal of the American Chemical Society, 2010, 132, 12166-12167.	6.6	9
59	EELS femtosecond resolved in 4D ultrafast electron microscopy. Chemical Physics Letters, 2009, 468, 107-111.	1.2	66
60	Dynamics of Chemical Bonding Mapped by Energy-Resolved 4D Electron Microscopy. Science, 2009, 325, 181-184.	6.0	170
61	Universal Optical Conductance of Graphite. Physical Review Letters, 2008, 100, 117401.	2.9	881
62	Direct role of structural dynamics in electron-lattice coupling of superconducting cuprates. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20161-20166.	3.3	74
63	Structural Preablation Dynamics of Graphite Observed by Ultrafast Electron Crystallography. Physical Review Letters, 2008, 100, 035501.	2.9	135