Matteo Savoini

List of Publications by Year in descending order

58 papers	2,014 citations	304743 22 h-index	233421 45 g-index
62 all docs	62 docs citations	62 times ranked	2866 citing authors

#	Article	IF	Citations
1	Laser-Induced Magnetic Nanostructures with Tunable Topological Properties. Physical Review Letters, 2013, 110, 177205.	7.8	256
2	Role of Magnetic Circular Dichroism in All-Optical Magnetic Recording. Physical Review Letters, 2012, 108, 127205.	7.8	253
3	The ultrafast Einsteinâ€“de Haas effect. Nature, 2019, 565, 209-212.	27.8	151
4	Nanoscale Confinement of All-Optical Magnetic Switching in TbFeCo - Competition with Nanoscale Heterogeneity. Nano Letters, 2015, 15, 6862-6868.	9.1	126
5	Selfâ€Assembled Organic Microfibers for Nonlinear Optics. Advanced Materials, 2013, 25, 2084-2089.	21.0	119
6	Near-field polarization shaping by a near-resonant plasmonic cross antenna. Physical Review B, 2009, 80, .	3.2	91
7	Dependence of the two-photon photoluminescence yield of gold nanostructures on the laser pulse duration. Physical Review B, 2009, 80, .	3.2	87
8	Element-Specific Probing of Ultrafast Spin Dynamics in Multisublattice Magnets with Visible Light. Physical Review Letters, 2013, 110, 107205.	7.8	85
9	Nanoscale sub-100 picosecond all-optical magnetization switching in GdFeCo microstructures. Nature Communications, 2015, 6, 5839.	12.8	74
10	Ultrafast Formation of a Charge Density Wave State in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub><mml:mrow><m : Observation at Nanometer Scales Using Time-Resolved X-Ray Diffraction. Physical Review Letters, 2017, 118, 247401.	7.8	60
11	Experimental Observation of a Photon Bouncing Ball. Physical Review Letters, 2009, 102, 180402.	7.8	44
12	THz Generation and Detection by Fluorenone Based Organic Crystals. ACS Photonics, 2018, 5, 671-677.	6.6	42
13	Highly efficient all-optical switching of magnetization in GdFeCo microstructures by interference-enhanced absorption of light. Physical Review B, 2012, 86, .	3.2	41
14	Controlling Microsized Polymorphic Architectures with Distinct Linear and Nonlinear Optical Properties. Advanced Optical Materials, 2015, 3, 948-956.	7.3	39
15	Ultrafast time-resolved magneto-optical imaging of all-optical switching in GdFeCo with femtosecond time-resolution and a Î¼m spatial-resolution. Review of Scientific Instruments, 2014, 85, 063702.	1.3	37
16	Optical excitation of thin magnetic layers in multilayer structures. Nature Materials, 2014, 13, 101-102.	27.5	35
17	Nonequilibrium charge-density-wave order beyond the thermal limit. Nature Communications, 2021, 12, 2499.	12.8	33
18	Efficiency of ultrafast laser-induced demagnetization in Gd<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>100</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi><mml:mo>â^’</mml:mo><mml:mi>y</mml:mi><mml:mi xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msu. Physical Review B, 2012	3.2	30

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19	Circular Dichroism Probed by Two-Photon Fluorescence Microscopy in Enantiopure Chiral Polyfluorene Thin Films. Journal of the American Chemical Society, 2012, 134, 5832-5835.	13.7	28
20	2D THz spectroscopic investigation of ballistic conduction-band electron dynamics in InSb. Optics Express, 2019, 27, 10854.	3.4	27
21	Ultrafast all-optical response of a nematic liquid crystal. Optics Express, 2015, 23, 14010.	3.4	25
22	All-optical subdiffraction multilevel data encoding onto azo-polymeric thin films. Optics Letters, 2009, 34, 761.	3.3	22
23	Deterministic character of all-optical magnetization switching in GdFe-based ferrimagnetic alloys. Physical Review B, 2016, 93, .	3.2	22
24	Magnetic Switching in Granular FePt Layers Promoted by Near-Field Laser Enhancement. Nano Letters, 2017, 17, 2426-2432.	9.1	22
25	Watching ultrafast responses of structure and magnetism in condensed matter with momentum-resolved probes. Structural Dynamics, 2017, 4, 061506.	2.3	21
26	Ultrafast Relaxation Dynamics of the Antiferrodistortive Phase in Ca Doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SrTiO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></ Physical Review Letters, 2018, 121, 055701.	7.8	20
27	Optical energy optimization at the nanoscale by near-field interference. Applied Physics Letters, 2012, 101, .	3.3	19
28	Near-field circular polarization probed by chiral polyfluorene. Optics Letters, 2009, 34, 3571.	3.3	17
29	The role of magnetization compensation point for efficient ultrafast control of magnetization in Gd24Fe66.5Co9.5 alloy. European Physical Journal B, 2013, 86, 1.	1.5	17
30	Spontaneous Formation of Left- and Right-Handed Cholesterically Ordered Domains in an Enantiopure Chiral Polyfluorene Film. Journal of Physical Chemistry Letters, 2011, 2, 1359-1362.	4.6	15
31	THz near-field enhancement by means of isolated dipolar antennas: the effect of finite sample size. Optics Express, 2016, 24, 4552.	3.4	14
32	Photoinduced transitions in magnetoresistive manganites: A comprehensive view. Physical Review B, 2018, 97, .	3.2	14
33	Domain-size effects on the dynamics of a charge density wave in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi mathvariant="normal">T</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mi>TaS</mml:mi><mml:mn>2</mml:mn></ Physical Review B, 2017, 96, .	3.2	13
34	Optical control of vibrational coherence triggered by an ultrafast phase transition. Physical Review B, 2019, 99, .	3.2	13
35	Bias-controlled ultrafast demagnetization in magnetic tunnel junctions. Physical Review B, 2014, 89, .	3.2	12
36	Electric field generation of Skyrmion-like structures in a nematic liquid crystal. Soft Matter, 2016, 12, 853-858.	2.7	11

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37	Retrieving the complex polarizability of single plasmonic nanoresonators. Physical Review B, 2009, 80, .	3.2	10
38	Comparison of coherent phonon generation by electronic and ionic Raman scattering in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub></m Physical Review Research, 2021, 3, .	3.6	9
39	Apparatus for vectorial Kerr confocal microscopy. Review of Scientific Instruments, 2011, 82, 023709.	1.3	8
40	Layer-sensitive magneto-optical spectroscopic study of magnetization dynamics in multilayered RE-TM structures. Applied Physics Letters, 2016, 109, .	3.3	8
41	Timeâ€Resolved Xâ€Ray Powder Diffraction Study of Photoinduced Phase Transitions in Ti₃O₅ Nanoparticles. ChemPhysChem, 2017, 18, 1385-1392.	2.1	8
42	Gaining Control through Frustration: Two-Fold Approach for Liquid Crystal Three-Dimensional Command Layers. Nano Letters, 2014, 14, 3903-3907.	9.1	7
43	Correlated electron-lattice dynamics and structural distortions and their ultrafast dynamics in the single-layer manganite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">P</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow	3.2	5
44	Optical excitation of electromagnons in hexaferrite. Physical Review Research, 2022, 4, .	3.6	4
45	Tailoring the interaction between matter and polarized light with plasmonic optical antennas. Proceedings of SPIE, 2011, , .	0.8	3
46	Attempting nanolocalization of all-optical switching through nano-holes in an Al-mask. Proceedings of SPIE, 2014, , .	0.8	3
47	Order at Extreme Dilution. Advanced Functional Materials, 2016, 26, 9009-9016.	14.9	3
48	Coupling between a Charge Density Wave and Magnetism in an Heusler Material. Physical Review Letters, 2017, 119, 227207.	7.8	3
49	Macroscopic movement of azo polymer chains by nearâ€field probes: Dependence on the illumination conditions. Physica Status Solidi (B): Basic Research, 2010, 247, 2067-2070.	1.5	2
50	Kinetics of a Phonon-Mediated Laser-Driven Structural Phase Transition in Sn2P2Se6. Applied Sciences (Switzerland), 2019, 9, 525.	2.5	2
51	Ultrafast generation of nanostructures with tunable topological properties by single laser pulse illumination. , 2013, , .		0
52	Influence of the Magnetization Compensation Point on the All-Optical Magnetization Switching. Springer Proceedings in Physics, 2015, , 30-31.	0.2	0
53	Fast and ultrafast all-optical control of light in nematic and smectic-A liquid crystals. , 2016, , .		0
54	2D THz spectroscopic investigation of ballistic conduction-band electron dynamics in InSb. , 2019, , .		0

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55	Multi-photon Autocorrelation in Gold Nanostructures. , 2011, , .		0
56	Layer-Specific Probing of Ultrafast Spin Dynamics in Multilayered Magnets with Visible Light. Springer Proceedings in Physics, 2015, , 69-71.	0.2	0
57	Improving the Efficiency of Ultrafast Optical Control of Magnetism in GdFeCo Continuous Films and Submicron Structures. Springer Proceedings in Physics, 2015, , 267-269.	0.2	0
58	All-optical switching of magnetic domains moves one step closer to application. SPIE Newsroom, 0, , .	0.1	0