

# Takuya Satoh

## List of Publications by Year in descending order

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55  
papers

1,623  
citations

331670

21  
h-index

289244

40  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1767  
citing authors

#	ARTICLE	IF	CITATIONS
1	Directional control of spin-wave emission by spatially shaped light. <i>Nature Photonics</i> , 2012, 6, 662-666.	31.4	219
2	Spin Oscillations in Antiferromagnetic NiO Triggered by Circularly Polarized Light. <i>Physical Review Letters</i> , 2010, 105, 077402.	7.8	217
3	Ultrafast Manipulation of Antiferromagnetism of NiO. <i>Physical Review Letters</i> , 2004, 93, 117402.	7.8	108
4	Spectral dependence of photoinduced spin precession in DyFeO <sub>3</sub> . <i>Physical Review B</i> , 2011, 84, .	3.2	91
5	All-optical observation and reconstruction of spin wave dispersion. <i>Nature Communications</i> , 2017, 8, 15859.	12.8	80
6	Writing and reading of an arbitrary optical polarization state in an antiferromagnet. <i>Nature Photonics</i> , 2015, 9, 25-29.	31.4	78
7	Ultrafast optical excitation of coherent magnons in antiferromagnetic NiO. <i>Physical Review B</i> , 2017, 95, .	3.2	70
8	Ultrafast magnetization dynamics of antiferromagnetic compounds. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 164005.	2.8	69
9	Temperature-dependent magnetic properties of yttrium iron garnet nanoparticles prepared by citrate sol-gel. <i>Journal of Alloys and Compounds</i> , 2012, 541, 18-22.	5.5	54
10	Crystallization and magnetic behavior of nanosized nickel ferrite prepared by citrate precursor method. <i>Journal of Alloys and Compounds</i> , 2011, 509, 6621-6625.	5.5	52
11	Phase-controllable spin wave generation in iron garnet by linearly polarized light pulses. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	45
12	Ultrafast spin and lattice dynamics in antiferromagnetic Cr <sub>2</sub> O <sub>3</sub> . <i>Physical Review B</i> , 2007, 75, .	3.2	40
13	Excitation of coupled spin-orbit dynamics in cobalt oxide by femtosecond laser pulses. <i>Nature Communications</i> , 2017, 8, 638.	12.8	39
14	Surface Plasmon-Mediated Nanoscale Localization of Laser-Driven sub-Terahertz Spin Dynamics in Magnetic Dielectrics. <i>Nano Letters</i> , 2018, 18, 2970-2975.	9.1	39
15	Wide frequencies range of spin excitations in a rare-earth Bi-doped iron garnet with a giant Faraday rotation. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	38
16	Irreversible photoinduced insulator-metal transition in the Na-doped manganite Pr <sub>0.75</sub> Na <sub>0.25</sub> MnO <sub>3</sub> . <i>Physical Review B</i> , 2002, 65, .	3.2	32
17	Tracking the ultrafast motion of an antiferromagnetic order parameter. <i>Nature Communications</i> , 2019, 10, 3995.	12.8	30
18	Magnetization and coercivity of nanocrystalline gadolinium iron garnet. <i>Journal of Magnetism and Magnetic Materials</i> , 2013, 332, 180-185.	2.3	29

#	ARTICLE	IF	CITATIONS
19	Coherent control of antiferromagnetism in NiO. <i>Physical Review B</i> , 2006, 74, .	3.2	23
20	Unidirectional control of optically induced spin waves. <i>Europhysics Letters</i> , 2017, 117, 67001.	2.0	23
21	Action spectra of the two-stage photoinduced insulator-metal transition in $\text{Pr}^{1-x}\text{Ca}_x\text{MnO}_3$ . <i>Physical Review B</i> , 1999, 60, 7944-7949.	3.2	22
22	Non-thermal optical excitation of terahertz-spin precession in a magneto-optical insulator. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	18
23	Nonlinear optical detection of a ferromagnetic state at the single interface of an antiferromagnetic $\text{LaMnO}_3/\text{SrMnO}_3$ double layer. <i>Physical Review B</i> , 2008, 78, .	3.2	17
24	Ultrafast light-driven simultaneous excitation of coherent terahertz magnons and phonons in multiferroic $\text{BiFeO}_3$ . <i>Physical Review B</i> , 2020, 101, .	3.2	16
25	Ultrafast Amplification and Nonlinear Magnetoelastic Coupling of Coherent Magnon Modes in an Antiferromagnet. <i>Physical Review Letters</i> , 2021, 127, 077202.	7.8	16
26	Spectroscopic study of photoinduced charge-gap collapse in the correlated insulators $\text{Pr}^{1-x}\text{Ca}_x\text{MnO}_3$ . <i>Physical Review B</i> , 2000, 62, 13903-13906.	3.2	14
27	Influence of laser pulse shaping on the ultrafast dynamics in antiferromagnetic NiO. <i>Physical Review B</i> , 2010, 82, .	3.2	13
28	Excitation of multiple phonon modes in copper metaborate $\text{CuBO}_3$ via nonresonant impulsive stimulated Raman scattering. <i>Physical Review B</i> , 2018, 98, .	3.2	13
29	Interfacial charge transfer excitation with large optical nonlinearity in manganite heterostructure. <i>Physical Review B</i> , 2005, 72, .	3.2	12
30	Half-metallic spin dynamics at a single $\text{LaMnO}_3/\text{NiO}$ interface studied with nonlinear magneto-optical Kerr effect. <i>Physical Review B</i> , 2009, 80, .	3.2	12
31	Photoinduced transient Faraday rotation in NiO. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 1421.	2.1	11
32	Generation of mid- to far-infrared ultrashort pulses in 4-dimethylamino-N-methyl-4-stilbazolium tosylate crystal. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 2507.	2.1	9
33	Observation of evanescent spin waves in the magnetic dipole regime. <i>Physical Review B</i> , 2020, 101, .	3.2	9
34	Excitation of coherent optical phonons in iron garnet by femtosecond laser pulses. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 275402.	1.8	7
35	Observation of terahertz magnon of Kaplan-Kittel exchange resonance in yttrium-iron garnet by Raman spectroscopy. <i>Physical Review B</i> , 2020, 102, .	3.2	7
36	Crystallization and magnetic characterizations of DyIG and HoIG nanopowders fabricated using citrate sol-gel. <i>Journal of Science: Advanced Materials and Devices</i> , 2016, 1, 193-199.	3.1	6

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37	Resonance-enhanced two-photon sum-frequency generation in NiO and KNiF <sub>3</sub> . Applied Physics B: Lasers and Optics, 2004, 79, 701-706.	2.2	5
38	Optical determination of the exchange stiffness constant in an iron garnet. Japanese Journal of Applied Physics, 2018, 57, 070308.	1.5	5
39	Efficient spin excitation via ultrafast damping-like torques in antiferromagnets. Nature Communications, 2020, 11, 6142.	12.8	5
40	Detection of spin and charge states in centrosymmetric materials by nonlinear optics. Journal of Applied Physics, 2005, 97, 10A914.	2.5	4
41	Time-resolved demagnetization in by phase-sensitive second harmonic generation. Journal of Magnetism and Magnetic Materials, 2007, 310, 1604-1606.	2.3	4
42	Ultrafast and magnetoelectric phase transitions in antiferromagnets. Journal of Magnetism and Magnetic Materials, 2006, 300, e264-e269.	2.3	3
43	Generation of mid/far-infrared ultrashort pulses in organic crystals. Journal of Physics: Conference Series, 2010, 206, 012014.	0.4	3
44	Ultrafast Optomagnonics in Ferrimagnetic Multi-Sublattice Garnets. Journal of the Physical Society of Japan, 2021, 90, 081008.	1.6	3
45	Selective imaging of the terahertz electric field of the phonon-polariton in $\text{LiNbO}_3$ . Physical Review B, 2020, 102, .		
46	Magnetization Reversal and Magnetic Domain Structures in GdYBIG Crystals. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	2
47	Development of Charge Sensitive Infrared Phototransistors for the Far-Infrared Wavelength. Journal of Low Temperature Physics, 2014, 176, 261-266.	1.4	2
48	Fast acquisition of spin-wave dispersion by compressed sensing. Applied Physics Express, 2021, 14, 033004.	2.4	2
49	Photoinduced and current-driven insulator/metal transition in manganites : A fluctuating route. European Physical Journal Special Topics, 1999, 09, Pr10-311-Pr10-314.	0.2	2
50	Irreversible Photoinduced Insulator-Metal Transition in Charge Ordered Pr <sub>0.75</sub> Na <sub>0.25</sub> MnO <sub>3</sub> . Phase Transitions, 2002, 75, 935-940.	1.3	1
51	Excitation and Control of Spin Wave by Light Pulses. Springer Proceedings in Physics, 2015, , 80-82.	0.2	1
52	Measurement of inverse Faraday effect in NiO using ultrashort laser pulses. , 2010, , .		0
53	Terahertz time-domain spectroscopy of antiferromagnetic resonance in orthoferrite. , 2011, , .		0
54	Surface-plasmon enabled control over magnetization dynamics in hybrid magnetoplasmonic crystals. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
55	Two-dimensional THz Spectroscopy of Exchange Interactions in Rare-earth Doped Garnets. , 2019, , .		0