

# Shingo Tamaru

## List of Publications by Year in descending order

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64  
papers

1,465  
citations

393982

19  
h-index

329751

37  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1139  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-Torque Oscillator Based on Magnetic Tunnel Junction with a Perpendicularly Magnetized Free Layer and In-Plane Magnetized Polarizer. Applied Physics Express, 2013, 6, 103003.	1.1	144
2	Large Voltage-Induced Changes in the Perpendicular Magnetic Anisotropy of an MgO-Based Tunnel Junction with an Ultrathin Fe Layer. Physical Review Applied, 2016, 5, .	1.5	141
3	Evaluation of write error rate for voltage-driven dynamic magnetization switching in magnetic tunnel junctions with perpendicular magnetization. Applied Physics Express, 2016, 9, 013001.	1.1	87
4	Highly efficient voltage control of spin and enhanced interfacial perpendicular magnetic anisotropy in iridium-doped Fe/MgO magnetic tunnel junctions. NPG Asia Materials, 2017, 9, e451-e451.	3.8	84
5	Perpendicular magnetic anisotropy of Ir/CoFeB/MgO trilayer system tuned by electric fields. Applied Physics Express, 2015, 8, 053003.	1.1	73
6	Imaging of quantized magnetostatic modes using spatially resolved ferromagnetic resonance. Journal of Applied Physics, 2002, 91, 8034.	1.1	72
7	Reduction in write error rate of voltage-driven dynamic magnetization switching by improving thermal stability factor. Applied Physics Letters, 2017, 111, .	1.5	60
8	High emission power and Q factor in spin torque vortex oscillator consisting of FeB free layer. Applied Physics Express, 2014, 7, 063009.	1.1	58
9	Enhancement in the interfacial perpendicular magnetic anisotropy and the voltage-controlled magnetic anisotropy by heavy metal doping at the Fe/MgO interface. APL Materials, 2018, 6, .	2.2	53
10	Voltage-Induced Magnetic Anisotropy Changes in an Ultrathin FeB Layer Sandwiched between Two MgO Layers. Applied Physics Express, 2013, 6, 073005.	1.1	52
11	Extremely Coherent Microwave Emission from Spin Torque Oscillator Stabilized by Phase Locked Loop. Scientific Reports, 2016, 5, 18134.	1.6	51
12	Critical Field of Spin Torque Oscillator with Perpendicularly Magnetized Free Layer. Applied Physics Express, 2013, 6, 123003.	1.1	48
13	Measurement of magnetostatic mode excitation and relaxation in permalloy films using scanning Kerr imaging. Physical Review B, 2004, 70, .	1.1	41
14	Improvement of write error rate in voltage-driven magnetization switching. Journal Physics D: Applied Physics, 2019, 52, 164001.	1.3	36
15	Write-Error Reduction of Voltage-Torque-Driven Magnetization Switching by a Controlled Voltage Pulse. Physical Review Applied, 2019, 11, .	1.5	32
16	Thermally Induced Precession-Orbit Transition of Magnetization in Voltage-Driven Magnetization Switching. Physical Review Applied, 2018, 10, .	1.5	29
17	Damping parameter and interfacial perpendicular magnetic anisotropy of FeB nanopillar sandwiched between MgO barrier and cap layers in magnetic tunnel junctions. Applied Physics Express, 2014, 7, 033004.	1.1	28
18	Magnetization switching assisted by high-frequency-voltage-induced ferromagnetic resonance. Applied Physics Express, 2014, 7, 073002.	1.1	25

#	ARTICLE	IF	CITATIONS
19	High-output microwave detector using voltage-induced ferromagnetic resonance. Applied Physics Letters, 2014, 105, 192408.	1.5	23
20	Ultrahigh Sensitivity Ferromagnetic Resonance Measurement Based on Microwave Interferometer. IEEE Magnetics Letters, 2014, 5, 1-4.	0.6	19
21	Bias field angle dependence of the self-oscillation of spin torque oscillators having a perpendicularly magnetized free layer and in-plane magnetized reference layer. Applied Physics Express, 2014, 7, 063005.	1.1	19
22	Perpendicular magnetic anisotropy and its voltage control in MgO/CoFeB/MgO junctions with atomically thin Ta adhesion layers. Acta Materialia, 2021, 216, 117097.	3.8	19
23	Voltage-Driven Magnetization Switching Using Inverse-Bias Schemes. Physical Review Applied, 2020, 13, .	1.5	18
24	Charge-based scanning probe readback of nanometer-scale ferroelectric domain patterns at megahertz rates. Nanotechnology, 2009, 20, 225501.	1.3	16
25	Observations of thermally excited ferromagnetic resonance on spin torque oscillators having a perpendicularly magnetized free layer. Journal of Applied Physics, 2014, 115, 17C740.	1.1	16
26	Vector network analyzer ferromagnetic resonance spectrometer with field differential detection. Review of Scientific Instruments, 2018, 89, 053901.	0.6	16
27	Inducing out-of-plane precession of magnetization for microwave-assisted magnetic recording with an oscillating polarizer in a spin-torque oscillator. Applied Physics Letters, 2019, 114, .	1.5	16
28	Voltage-Driven Magnetization Switching Controlled by Microwave Electric Field Pumping. Nano Letters, 2020, 20, 6012-6017.	4.5	14
29	Magnetic field angle dependence of out-of-plane precession in spin torque oscillators having an in-plane magnetized free layer and a perpendicularly magnetized reference layer. Applied Physics Express, 2016, 9, 053006.	1.1	13
30	Diameter dependence of emission power in MgO-based nano-pillar spin-torque oscillators. Applied Physics Letters, 2016, 108, .	1.5	12
31	Spin torque diode effect of the magnetic tunnel junction with MnGa free layer. Applied Physics Letters, 2018, 112, .	1.5	12
32	High frequency dynamics of the soft underlayer in perpendicular recording system. Journal of Applied Physics, 2002, 91, 8052.	1.1	11
33	Deviation from exponential decay for spin waves excited with a coplanar waveguide antenna. Applied Physics Letters, 2012, 101, 252409.	1.5	10
34	Analysis of phase noise in a spin torque oscillator stabilized by phase locked loop. Applied Physics Express, 2016, 9, 053005.	1.1	10
35	Spin-wave eigenmodes in single disk-shaped FeB nanomagnet. Physical Review B, 2016, 94, .	1.1	9
36	Accurate calculation and shaping of the voltage pulse waveform applied to a voltage-controlled magnetic random access memory cell. Japanese Journal of Applied Physics, 2018, 57, 073002.	0.8	9

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37	Field angle dependence of voltage-induced ferromagnetic resonance under DC bias voltage. Journal of Magnetism and Magnetic Materials, 2016, 400, 159-162.	1.0	8
38	Sub-nanosecond non-Arrhenius magnetic switching in perpendicular multilayers. IEEE Transactions on Magnetism, 2001, 37, 1570-1572.	1.2	7
39	Green's function for magnetostatic surface waves and its application to the study of diffraction patterns. Physical Review B, 2011, 84, .	1.1	7
40	Experimental Study of the Variation in Oscillation Characteristics of Point-Contact-Based Spin-Torque Oscillators. IEEE Magnetics Letters, 2012, 3, 3000504-3000504.	0.6	7
41	Real-time observation of sub-nanosecond magnetic switching in perpendicular multilayers. Journal of Magnetism and Magnetic Materials, 2001, 235, 138-142.	1.0	6
42	Discontinuous frequency drop in spin torque oscillator with a perpendicularly magnetized FeB free layer. Japanese Journal of Applied Physics, 2014, 53, 060307.	0.8	6
43	Broadband and high-sensitivity permeability measurements on a single magnetic particle by transformer coupled permeameter. Journal of Magnetism and Magnetic Materials, 2020, 501, 166434.	1.0	6
44	Low Gilbert damping in epitaxial thin films of the nodal-line semimetal $D_{0\zeta}$ $\text{Fe}_3\text{Ga}$ . Physical Review B, 2021, 103, .	1.1	5
45	Large voltage-induced coercivity change in Pt/Co/CoO/amorphous TiOx structure and heavy metal insertion effect. Scientific Reports, 2021, 11, 21448.	1.6	5
46	Measurement of shot noise in magnetic tunnel junction and its utilization for accurate system calibration. Journal of Applied Physics, 2017, 122, .	1.1	4
47	Influence of output power of a spin torque oscillator on phase locked loop operation. Japanese Journal of Applied Physics, 2016, 55, 093003.	0.8	3
48	Accurate De-Embedding and Measurement of Spin-Torque Oscillators. IEEE Transactions on Magnetism, 2017, 53, 1-4.	1.2	3
49	Analysis of an all-in-plane spin-torque oscillator using injection locking to an external microwave magnetic field. Applied Physics Express, 2021, 14, 053001.	1.1	3
50	Development of a high-sensitivity VNA-FMR spectrometer with field modulation detection and its application to magnetic characterization. Electronics and Communications in Japan, 2021, 104, e12320.	0.3	3
51	Analysis method of a spin-torque oscillator using dc resistance change during injection locking to an external microwave magnetic field. Applied Physics Letters, 2021, 119, .	1.5	3
52	Perpendicular magnetic anisotropy and its voltage control in MgO/CoFeB/Mo/CoFeB/MgO junctions. Journal Physics D: Applied Physics, 2022, 55, 275003.	1.3	3
53	Role of Magnetic Field in Self-Oscillation of Nanomagnet Excited by Spin Torque. IEEE Transactions on Magnetism, 2014, 50, 1-4.	1.2	2
54	Physical Origin and Theoretical Limit of the Phase Stability of a Spin-Torque Oscillator Stabilized by a Phase-Locked Loop. Physical Review Applied, 2017, 7, .	1.5	2

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55	Perpendicular magnetic anisotropy and its electrical control in FeNiB ultrathin films. AIP Advances, 2021, 11, .	0.6	2
56	Generation of highly stable 5 GHz microwave from a spin torque oscillator by phase locked loop referenced to a 80 MHz clock. , 2015, , .		1
57	Voltage-Controlled Magnetic Anisotropy in an Ultrathin Fe Layer Sandwiched Between Cr and MgO Layers. , 2016, , .		1
58	High-speed write error rate evaluation of a voltage-torque magnetic random access memory cell. Japanese Journal of Applied Physics, 2019, 58, 060905.	0.8	1
59	Improvement in perpendicular magnetic anisotropy and its voltage control efficiency in CoFeB/MgO tunnel junctions with Ta/Mo layered adhesion structures. Journal of Applied Physics, 2022, 131, 213901.	1.1	1
60	Measurement of magnetostatic mode excitation and relaxation in Permalloy films using scanning Kerr imaging. , 0, , .		0
61	Measurement of ultra-low power oscillators using adaptive drift cancellation with applications to nano-magnetic spin torque oscillators. Review of Scientific Instruments, 2013, 84, 054704.	0.6	0
62	Perpendicular Magnetic Anisotropy and its Voltage Control in MgO/CoFeB/MgO Junctions with Atomically Thin Ta Adhesion Layers. SSRN Electronic Journal, 0, , .	0.4	0
63	Radio-Frequency (RF) Permeameter. , 2021, , 407-430.		0
64	Analysis of a Spin-Torque Oscillator Using Injection Locking to an External Microwave Field. , 2021, , .		0