

Sebastian Goennenwein

List of Publications by Year in descending order

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131
papers

10,828
citations

36303

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30087

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135
docs citations

135
times ranked

7996
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic layer deposition of yttrium iron garnet thin films. <i>Physical Review Materials</i> , 2022, 6, .	2.4	6
2	Magnetization dynamics affected by phonon pumping. <i>Physical Review B</i> , 2022, 106, .	3.2	13
3	Magnetic and Electronic Properties of Weyl Semimetal Co ₂ MnGa Thin Films. <i>Nanomaterials</i> , 2021, 11, 251.	4.1	21
4	Local and nonlocal spin Seebeck effect in lateral Pt/Cr ₂ O ₃ /Pt devices at low temperatures. <i>APL Materials</i> , 2021, 9, .	5.1	13
5	Role of Magnetic Exchange Interactions in Chiral-Type Hall Effects of Epitaxial Mn _x Pt _{1-x} Sn Films. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1323-1333.	4.3	11
6	Magneto-crystalline anisotropies in Mn _x Pt _{1-x} Sn thin films. <i>APL Materials</i> , 2021, 9, .	5.1	3
7	Nonlocal magnon-based transport in yttrium-iron-garnet/platinum heterostructures at high temperatures. <i>Physical Review B</i> , 2021, 103, .	3.2	2
8	Control of Nonlocal Magnon Spin Transport via Magnon Drift Currents. <i>Physical Review Letters</i> , 2021, 126, 257201.	7.8	30
9	Anisotropic magnetothermal transport in Co ₂ MnGa thin films. <i>Physical Review B</i> , 2021, 104, .	3.2	2
10	Signatures of the Magnetic Entropy in the Thermopower Signals in Nanoribbons of the Magnetic Weyl Semimetal Co ₃ Sn ₂ S ₂ . <i>Nano Letters</i> , 2020, 20, 300-305.	9.1	23
11	Spin Current in an Antiferromagnet is Coherent. <i>Physics Magazine</i> , 2020, 13, .	0.1	3
12	Thickness dependence of the anomalous Nernst effect and the Mott relation of Weyl semimetal thin films. <i>Physical Review B</i> , 2020, 101, .	3.2	40
13	Large Spin Hall Magnetoresistance in Antiferromagnetic Pt/Co ₂ MnGa Heterostructures. <i>Physical Review Applied</i> , 2020, 13, .	3.3	17
14	Static magnetic proximity effects and spin Hall magnetoresistance in Pt/Y ₃ Fe ₅ O ₁₂ and inverted Y ₃ Fe ₅ O ₁₂ /Pt bilayers. <i>Physical Review B</i> , 2020, 102, .	3.2	8
15	Focused ion beam modification of non-local magnon-based transport in yttrium iron garnet/platinum heterostructures. <i>Applied Physics Letters</i> , 2019, 114, 252401.	3.3	6
16	Spin Hall magnetoresistance in heterostructures consisting of noncrystalline paramagnetic YIG and Pt. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	13
17	Anomalous spin Hall angle of a metallic ferromagnet determined by a multiterminal spin injection/detection device. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	9
18	Exchange-Enhanced Ultrastrong Magnon-Magnon Coupling in a Compensated Ferrimagnet. <i>Physical Review Letters</i> , 2019, 123, 117204.	7.8	77

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19	All Electrical Access to Topological Transport Features in Mn _{1.8} PtSn Films. Nano Letters, 2019, 19, 2366-2370.	9.1	14
20	Magnetoresistance and anomalous Hall effect in micro-ribbons of the magnetic Weyl semimetal Co ₃ Sn ₂ S ₂ . Applied Physics Letters, 2019, 114, .	3.3	22
21	Imaging and writing magnetic domains in the non-collinear antiferromagnet Mn ₃ Sn. Nature Communications, 2019, 10, 5459.	12.8	55
22	Topological Hall effect in thin films of $\text{Mn}_{1.5}\text{PtSn}$. Physical Review Materials, 2019, 3, .	3.2	32
23	Evolution of the spin hall magnetoresistance in Cr ₂ O ₃ /Pt bilayers close to the Néel temperature. Applied Physics Letters, 2018, 112, .	3.3	55
24	Spin Hall magnetoresistance in antiferromagnet/heavy-metal heterostructures. Physical Review B, 2018, 97, .	3.2	140
25	Spin-Torque Excitation of Perpendicular Standing Spin Waves in Coupled Co/YIG Heterostructures. Physical Review Letters, 2018, 120, 127201.	7.8	180
26	Spin Hall magnetoresistance in the non-collinear ferrimagnet GdIG close to the compensation temperature. Journal of Physics Condensed Matter, 2018, 30, 035802.	1.8	28
27	Large anomalous Nernst effect in thin films of the Weyl semimetal Co ₂ MnGa. Applied Physics Letters, 2018, 113, .	3.3	92
28	Giant anomalous Hall effect in a ferromagnetic kagome-lattice semimetal. Nature Physics, 2018, 14, 1125-1131.	16.7	876
29	Note: Derivative divide, a method for the analysis of broadband ferromagnetic resonance in the frequency domain. Review of Scientific Instruments, 2018, 89, 076101.	1.3	16
30	Femtosecond formation dynamics of the spin Seebeck effect revealed by terahertz spectroscopy. Nature Communications, 2018, 9, 2899.	12.8	131
31	Spin-hall-active platinum thin films grown via atomic layer deposition. Applied Physics Letters, 2018, 112, .	3.3	8
32	Pure spin current transport in gallium doped zinc oxide. Applied Physics Letters, 2017, 110, 052403.	3.3	2
33	Magnon Mode Selective Spin Transport in Compensated Ferrimagnets. Nano Letters, 2017, 17, 3334-3340.	9.1	42
34	Spin injection into silicon detected by broadband ferromagnetic resonance spectroscopy. Applied Physics Letters, 2017, 110, 182402.	3.3	9
35	Gilbert damping of magnetostatic modes in a yttrium iron garnet sphere. Applied Physics Letters, 2017, 110, .	3.3	42
36	Tunable magnon-photon coupling in a compensating ferrimagnet from weak to strong coupling. Applied Physics Letters, 2017, 110, .	3.3	27

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37	Impact of the interface quality of Pt/YIG(111) hybrids on their spin Hall magnetoresistance. Applied Physics Letters, 2017, 110, .	3.3	30
38	Observation of the spin Nernst effect. Nature Materials, 2017, 16, 977-981.	27.5	137
39	Temperature dependence of the non-local spin Seebeck effect in YIG/Pt nanostructures. AIP Advances, 2017, 7, .	1.3	27
40	Helimagnon Resonances in an Intrinsic Chiral Magnonic Crystal. Physical Review Letters, 2017, 119, 237204.	7.8	25
41	Temperature-dependent magnetic damping of yttrium iron garnet spheres. Physical Review B, 2017, 95, .	3.2	67
42	Detection of DC currents and resistance measurements in longitudinal spin Seebeck effect experiments on Pt/YIG and Pt/NFO. AIP Advances, 2016, 6, .	1.3	5
43	Magnon-based logic in a multi-terminal YIG/Pt nanostructure. Applied Physics Letters, 2016, 109, .	3.3	74
44	Combined Brillouin light scattering and microwave absorption study of magnon-photon coupling in a split-ring resonator/YIG film system. Applied Physics Letters, 2016, 109, .	3.3	37
45	A versatile platform for magnetostriction measurements in thin films. Journal of Applied Physics, 2016, 119, .	2.5	6
46	Spin pumping in strongly coupled magnon-photon systems. Physical Review B, 2016, 94, .	3.2	69
47	Spin Hall magnetoresistance in a canted ferrimagnet. Physical Review B, 2016, 94, .	3.2	73
48	Efficient spin transport through native oxides of nickel and permalloy with platinum and gold overlayers. Physical Review B, 2016, 93, .	3.2	29
49	Spin Seebeck effect at microwave frequencies. Physical Review B, 2016, 93, .	3.2	28
50	Theory of spin Hall magnetoresistance (SMR) and related phenomena. Journal of Physics Condensed Matter, 2016, 28, 103004.	1.8	73
51	Origin of the spin Seebeck effect in compensated ferrimagnets. Nature Communications, 2016, 7, 10452.	12.8	154
52	Current-induced spin torque resonance of a magnetic insulator. Physical Review B, 2015, 92, .	3.2	55
53	Electrical Signal Picks Up a Magnet's Heartbeat. Physics Magazine, 2015, 8, .	0.1	1
54	Spin pumping in YIG/Pt bilayers as a function of layer thickness. Physical Review B, 2015, 92, .	3.2	73

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55	Antiferromagnetic resonance detected by direct current voltages in MnF ₂ /Pt bilayers. Journal of Applied Physics, 2015, 118, .	2.5	25
56	High cooperativity coupling between a phosphorus donor spin ensemble and a superconducting microwave resonator. Applied Physics Letters, 2015, 107, .	3.3	34
57	Non-local magnetoresistance in YIG/Pt nanostructures. Applied Physics Letters, 2015, 107, .	3.3	131
58	Longitudinal spin Seebeck effect contribution in transverse spin Seebeck effect experiments in Pt/YIG and Pt/NFO. Nature Communications, 2015, 6, 8211.	12.8	87
59	Anomalous Hall effect in YIG Pt bilayers. Applied Physics Letters, 2015, 106, .	3.3	69
60	Exchange magnon-polaritons in microwave cavities. Physical Review B, 2015, 91, .	3.2	165
61	An all-electrical torque differential magnetometer operating under ambient conditions. European Physical Journal B, 2015, 88, 1.	1.5	3
62	Sign of inverse spin Hall voltages generated by ferromagnetic resonance and temperature gradients in yttrium iron garnet platinum bilayers. Journal Physics D: Applied Physics, 2015, 48, 025001.	2.8	52
63	Spin Hall noise. Physical Review B, 2014, 90, .	3.2	20
64	Time resolved spin Seebeck effect experiments. Applied Physics Letters, 2014, 104, 202410.	3.3	38
65	Temperature dependent spin transport properties of platinum inferred from spin Hall magnetoresistance measurements. Applied Physics Letters, 2014, 104, .	3.3	84
66	Zinc oxide "From dilute magnetic doping to spin transport. Physica Status Solidi (B): Basic Research, 2014, 251, 1700-1709.	1.5	37
67	Spin Hall magnetoimpedance. Physical Review B, 2014, 90, .	3.2	16
68	Theoretical model for torque differential magnetometry of single-domain magnets. Physical Review B, 2014, 89, .	3.2	14
69	Inverse magnetoelectric effects in Fe ₃ O ₄ /BaTiO ₃ hybrid structures. Physical Review B, 2013, 88, .	3.2	42
70	Magnon, phonon, and electron temperature profiles and the spin Seebeck effect in magnetic insulator/normal metal hybrid structures. Physical Review B, 2013, 88, .	3.2	179
71	Experimental Test of the Spin Mixing Interface Conductivity Concept. Physical Review Letters, 2013, 111, 176601.	7.8	268
72	Spin Pumping and Spin Currents in Magnetic Insulators. Solid State Physics, 2013, 64, 123-156.	0.5	11

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73	High Cooperativity in Coupled Microwave Resonator Ferrimagnetic Insulator Hybrids. Physical Review Letters, 2013, 111, 127003.	7.8	562
74	Theory of spin Hall magnetoresistance. Physical Review B, 2013, 87, .	3.2	615
75	Quantitative study of the spin Hall magnetoresistance in ferromagnetic insulator/normal metal hybrids. Physical Review B, 2013, 87, .	3.2	422
76	Spin Hall Magnetoresistance Induced by a Nonequilibrium Proximity Effect. Physical Review Letters, 2013, 110, 206601.	7.8	867
77	Current heating induced spin Seebeck effect. Applied Physics Letters, 2013, 103, .	3.3	82
78	Angle-dependent spin-wave resonance spectroscopy of (Ga,Mn)As films. Physical Review B, 2013, 87, .	3.2	15
79	Spin Pumping with Coherent Elastic Waves. Physical Review Letters, 2012, 108, 176601.	7.8	203
80	Local Charge and Spin Currents in Magnetothermal Landscapes. Physical Review Letters, 2012, 108, 106602.	7.8	225
81	Surface acoustic wave driven ferromagnetic resonance in nickel thin films: Theory and experiment. Physical Review B, 2012, 86, .	3.2	200
82	Investigation of induced Pt magnetic polarization in Pt/Y3Fe5O12 bilayers. Applied Physics Letters, 2012, 101, .	3.3	113
83	Giant magnetoelastic effects in BaTiO ₃ -based extrinsic multiferroic hybrids. Physical Review B, 2012, 86, .	3.2	14
84	Spin transport and spin dephasing in zinc oxide. Applied Physics Letters, 2012, 101, 082404.	3.3	26
85	Magneto-optical imaging of elastic strain-controlled magnetization reorientation. European Physical Journal B, 2012, 85, 1.	1.5	11
86	Nonvolatile, reversible electric-field controlled switching of remanent magnetization in multifunctional ferromagnetic/ferroelectric hybrids. Journal of Applied Physics, 2011, 110, .	2.5	52
87	Elastically Driven Ferromagnetic Resonance in Nickel Thin Films. Physical Review Letters, 2011, 106, 117601.	7.8	278
88	Novel multifunctional materials based on oxide thin films and artificial heteroepitaxial multilayers. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 232-251.	1.8	47
89	Experimental observation of an enhanced anisotropic magnetoresistance in non-local configuration. Applied Physics Letters, 2011, 99, 142112.	3.3	4
90	Local tunneling magnetoresistance probed by low-temperature scanning laser microscopy. Applied Physics Letters, 2011, 99, 182513.	3.3	3

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91	Scaling Behavior of the Spin Pumping Effect in Ferromagnet-Platinum Bilayers. Physical Review Letters, 2011, 107, 046601.	7.8	232
92	Electroelastic Hyperfine Tuning of Phosphorus Donors in Silicon. Physical Review Letters, 2011, 106, 037601.	7.8	48
93	Magnetic microstructure and magnetotransport in Co ₂ FeAl Heusler compound thin films. Applied Physics Letters, 2011, 98, 042501.	3.3	9
94	Electron spin resonance of Zn _{1-x} Mg _x O thin films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2010, 97, 092102.	3.3	5
95	Magnetic interference patterns in Josephson junctions: Effects of asymmetry between 0 and π regions. Physical Review B, 2010, 81, .	3.2	50
96	Electric field controlled manipulation of the magnetization in Ni/BaTiO ₃ hybrid structures. Applied Physics Letters, 2010, 96, .	3.3	158
97	Advanced spectroscopic synchrotron techniques to unravel the intrinsic properties of dilute magnetic oxides: the case of Co:ZnO. New Journal of Physics, 2010, 12, 013020.	2.9	89
98	Magnetic anisotropy in (Ga,Mn)As: Influence of epitaxial strain and hole concentration. Physical Review B, 2009, 79, .	3.2	51
99	Spin-wave resonances and surface spin pinning in Ga _{1-x} In _x As films. Physical Review B, 2009, 79, .	3.2	35
100	Giant magnetic anisotropy changes in Sr ₂ CrReO ₆ thin films on BaTiO ₃ . Applied Physics Letters, 2009, 95, 062508.	3.3	30
101	Epitaxial Zn _x Te films: A spintronic material with tunable electrical and magnetic properties. Physical Review B, 2009, 79, .	3.2	134
102	Voltage controlled inversion of magnetic anisotropy in a ferromagnetic thin film at room temperature. New Journal of Physics, 2009, 11, 013021.	2.9	145
103	Nanosized superparamagnetic precipitates in cobalt-doped ZnO. European Physical Journal B, 2008, 63, 437-444.	1.5	59
104	Piezoelectric voltage control of magnetization orientation in a ferromagnetic semiconductor. Physica Status Solidi - Rapid Research Letters, 2008, 2, 96-98.	2.4	38
105	In situ manipulation of magnetic anisotropy in magnetite thin films. Physical Review B, 2008, 77, .	3.2	96
106	All oxide ferromagnet/semiconductor epitaxial heterostructures. Applied Physics Letters, 2008, 93, 162510.	3.3	29
107	Ga _{1-x} In _x As actuator hybrids: A model system for magnetoelastic magnetization manipulation. Physical Review B, 2008, 78, .	3.2	72
108	Phase Diagram of the Electron-Doped La _{2-x} Ce _x CuO ₄ Cuprate Superconductor from Andreev Bound States at Grain Boundary Junctions. Physical Review Letters, 2008, 100, 227001.	7.8	12

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109	Anomalous Hall effect in magnetite: Universal scaling relation between Hall and longitudinal conductivity in low-conductivity ferromagnets. <i>Physical Review B</i> , 2008, 78, .	3.2	50
110	Suppression of hole-mediated ferromagnetism in Ga _{1-x} MnxP by hydrogen. <i>Journal of Applied Physics</i> , 2008, 104, 013908.	2.5	9
111	Planar Hall effect and magnetic anisotropy in epitaxially strained chromium dioxide thin films. <i>Applied Physics Letters</i> , 2007, 90, 142509.	3.3	22
112	Electrically detected ferromagnetic resonance. <i>Applied Physics Letters</i> , 2007, 90, 162507.	3.3	26
113	Magnetocrystalline anisotropy and magnetization reversal in Ga _{1-x} MnxP synthesized by ion implantation and pulsed-laser melting. <i>Physical Review B</i> , 2007, 75, .	3.2	20
114	Multiferroic materials based on artificial thin film heterostructures. <i>Philosophical Magazine Letters</i> , 2007, 87, 141-154.	1.2	24
115	Magnetic anisotropy of Ga _{1-x} MnxAs thin films on GaAs (111)A probed by ferromagnetic resonance. <i>Applied Physics Letters</i> , 2006, 89, 012507.	3.3	29
116	Ferromagnetism in epitaxial Zn _{0.95} Co _{0.05} O films grown on ZnO and Al ₂ O ₃ . <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 3581-3596.	1.8	20
117	A spin triplet supercurrent through the half-metallic ferromagnet CrO ₂ . <i>Nature</i> , 2006, 439, 825-827.	27.8	663
118	Angle-dependent magnetotransport in cubic and tetragonal ferromagnets: Application to (001)- and (111)A-oriented (Ga,Mn)As. <i>Physical Review B</i> , 2006, 74, .	3.2	70
119	Spin-glass-like behavior of Ge:Mn. <i>Physical Review B</i> , 2006, 74, .	3.2	78
120	Quantitative study of magnetotransport through a (Ga,Mn)As single ferromagnetic domain. <i>Physical Review B</i> , 2005, 71, .	3.2	41
121	Passivation of Mn acceptors in GaMnAs. <i>Applied Physics Letters</i> , 2004, 84, 2277-2279.	3.3	32
122	Hydrogen Control of Ferromagnetism in a Dilute Magnetic Semiconductor. <i>Physical Review Letters</i> , 2004, 92, 227202.	7.8	72
123	Spin-dependent transport in elemental and compound semiconductors and nanostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 2056-2093.	0.8	21
124	Prospects for Carrier-Mediated Ferromagnetism in GaN. <i>ChemInform</i> , 2004, 35, no.	0.0	0
125	Ferromagnetic Resonance in Ga _{1-x} MnxAs. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 75-78.	0.5	9
126	Prospects for carrier-mediated ferromagnetism in GaN. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 239, 277-290.	1.5	83

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127	Spin wave resonance in Ga _{1-x} MnxAs. Applied Physics Letters, 2003, 82, 730-732.	3.3	86
128	Generation-recombination noise of DX centers in AlN:Si. Applied Physics Letters, 2001, 79, 2396-2398.	3.3	20
129	Microscopic Identification of the Origin of Generation-Recombination Noise in Hydrogenated Amorphous Silicon with Noise-Detected Magnetic Resonance. Physical Review Letters, 2000, 84, 5188-5191.	7.8	11
130	DX-behavior of Si in AlN. Physical Review B, 2000, 61, R16283-R16286.	3.2	123
131	TEM studies of cobalt-doped zinc oxide films. , 0, , 623-624.		0