

# Jakub Zelezny

## List of Publications by Year in descending order

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33  
papers

4,330  
citations

304602

22  
h-index

414303

32  
g-index

33  
all docs

33  
docs citations

33  
times ranked

4050  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical switching of an antiferromagnet. <i>Science</i> , 2016, 351, 587-590.	6.0	1,049
2	Current-induced spin-orbit torques in ferromagnetic and antiferromagnetic systems. <i>Reviews of Modern Physics</i> , 2019, 91, .	16.4	899
3	Relativistic Néel-Order Fields Induced by Electrical Current in Antiferromagnets. <i>Physical Review Letters</i> , 2014, 113, 157201.	2.9	377
4	Spin transport and spin torque in antiferromagnetic devices. <i>Nature Physics</i> , 2018, 14, 220-228.	6.5	298
5	Strong anisotropic anomalous Hall effect and spin Hall effect in the chiral antiferromagnetic compounds	1.9	197
6	Spin-Polarized Current in Noncollinear Antiferromagnets. <i>Physical Review Letters</i> , 2017, 119, 187204.	2.9	168
7	Anisotropic magnetoresistance in an antiferromagnetic semiconductor. <i>Nature Communications</i> , 2014, 5, 4671.	5.8	136
8	Electric Control of Dirac Quasiparticles by Spin-Orbit Torque in an Antiferromagnet. <i>Physical Review Letters</i> , 2017, 118, 106402.	2.9	131
9	Tetragonal phase of epitaxial room-temperature antiferromagnet CuMnAs. <i>Nature Communications</i> , 2013, 4, 2322.	5.8	123
10	Spin-orbit torques in locally and globally noncentrosymmetric crystals: Antiferromagnets and ferromagnets. <i>Physical Review B</i> , 2017, 95, .	1.1	113
11	Optical determination of the Néel vector in a CuMnAs thin-film antiferromagnet. <i>Nature Photonics</i> , 2017, 11, 91-96.	15.6	103
12	Efficient Electrical Spin Splitter Based on Nonrelativistic Collinear Antiferromagnetism. <i>Physical Review Letters</i> , 2021, 126, 127701.	2.9	83
13	Room-temperature spin-orbit torque in NiMnSb. <i>Nature Physics</i> , 2016, 12, 855-860.	6.5	79
14	Electrically induced and detected Néel vector reversal in a collinear antiferromagnet. <i>Nature Communications</i> , 2018, 9, 4686.	5.8	79
15	Epitaxy-distorted spin-orbit Mott insulator in SrIrO <sub>2</sub> thin films. <i>Physical Review B</i> , 2013, 87, .	1.1	70
16	Antiferromagnetic structure in tetragonal CuMnAs thin films. <i>Scientific Reports</i> , 2015, 5, 17079.	1.6	68
17	Electrical switching of perpendicular magnetization in a single ferromagnetic layer. <i>Physical Review B</i> , 2020, 101, .	1.1	66
18	Spin Hall effect emerging from a noncollinear magnetic lattice without spin-orbit coupling. <i>New Journal of Physics</i> , 2018, 20, 073028.	1.2	65

#	ARTICLE	IF	CITATIONS
19	Imaging and writing magnetic domains in the non-collinear antiferromagnet Mn <sub>3</sub> Sn. Nature Communications, 2019, 10, 5459.	5.8	55
20	On the Similarity of Sturm-Liouville Operators with Non-Hermitian Boundary Conditions to Self-Adjoint and Normal Operators. Complex Analysis and Operator Theory, 2014, 8, 255-281.	0.3	25
21	Giant reversible nanoscale piezoresistance at room temperature in Sr <sub>2</sub> IrO <sub>4</sub> thin films. Nanoscale, 2015, 7, 3453-3459.	2.8	24
22	Band structure of CuMnAs probed by optical and photoemission spectroscopy. Physical Review B, 2018, 97, .	1.1	22
23	Unconventional Robust Spin-Transfer Torque in Noncollinear Antiferromagnetic Junctions. Physical Review Letters, 2022, 128, 097702.	2.9	18
24	Different types of spin currents in the comprehensive materials database of nonmagnetic spin Hall effect. Npj Computational Materials, 2021, 7, .	3.5	16
25	Unidirectional magnetoresistance and spin-orbit torque in NiMnSb. Physical Review B, 2021, 104, .	1.1	13
26	Atomically sharp domain walls in an antiferromagnet. Science Advances, 2022, 8, eabn3535.	4.7	12
27	Large-tunneling anisotropic magneto-Seebeck effect in a CoPt/MgO/Pt tunnel junction. Physical Review B, 2014, 90, .	1.1	10
28	Control of antiferromagnetic spin axis orientation in bilayer Fe/CuMnAs films. Scientific Reports, 2017, 7, 11147.	1.6	9
29	Electrical transport properties of bulk tetragonal CuMnAs. Physical Review Materials, 2020, 4, .	0.9	9
30	Tuning Spin Hall Conductivity in GeTe by Ferroelectric Polarization. Physica Status Solidi (B): Basic Research, 2020, 257, 2000143.	0.7	4
31	Spectrum of the Metric Operator of a Simple $\gamma$ -Symmetric Model. International Journal of Theoretical Physics, 2011, 50, 1012-1018.	0.5	3
32	Spin Polarization Without Net Magnetization. Physics Magazine, 0, 13, .	0.1	3
33	Theoretical study of extrinsic spin current generation in ferromagnets induced by anisotropic spin-flip scattering. Physical Review B, 2021, 104, .	1.1	3