

Wanjun Jiang

List of Publications by Year in descending order

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76196

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87
docs citations

87
times ranked

6721
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Blowing magnetic skyrmion bubbles. <i>Science</i> , 2015, 349, 283-286. | 6.0 | 1,177 |
| 2 | Direct observation of the skyrmion Hall effect. <i>Nature Physics</i> , 2017, 13, 162-169. | 6.5 | 858 |
| 3 | Magnetization switching through giant spin-orbit torque in a magnetically doped topological insulator heterostructure. <i>Nature Materials</i> , 2014, 13, 699-704. | 13.3 | 773 |
| 4 | Switching of perpendicular magnetization by spin-orbit torques in the absence of external magnetic fields. <i>Nature Nanotechnology</i> , 2014, 9, 548-554. | 15.6 | 753 |
| 5 | Skyrmions in magnetic multilayers. <i>Physics Reports</i> , 2017, 704, 1-49. | 10.3 | 412 |
| 6 | Spin Hall Effects in Metallic Antiferromagnets. <i>Physical Review Letters</i> , 2014, 113, 196602. | 2.9 | 313 |
| 7 | Room-Temperature Skyrmion Shift Device for Memory Application. <i>Nano Letters</i> , 2017, 17, 261-268. | 4.5 | 227 |
| 8 | Proximity Induced High-Temperature Magnetic Order in Topological Insulator - Ferrimagnetic Insulator Heterostructure. <i>Nano Letters</i> , 2014, 14, 3459-3465. | 4.5 | 192 |
| 9 | Surface-Dominated Conduction in a 6 nm thick Bi ₂ Se ₃ Thin Film. <i>Nano Letters</i> , 2012, 12, 1486-1490. | 4.5 | 162 |
| 10 | Electrical Detection of Spin-Polarized Surface States Conduction in (Bi _{0.53} Sb _{0.47}) ₂ Te ₃ Topological Insulator. <i>Nano Letters</i> , 2014, 14, 5423-5429. | 4.5 | 150 |
| 11 | Is a Griffiths Phase a Prerequisite for Colossal Magnetoresistance?. <i>Physical Review Letters</i> , 2007, 99, 177203. | 2.9 | 146 |
| 12 | Direct Imaging of Thermally Driven Domain Wall Motion in Magnetic Insulators. <i>Physical Review Letters</i> , 2013, 110, 177202. | 2.9 | 124 |
| 13 | Griffiths phase and critical behavior in single-crystal $\text{La}_{0.7}\text{Ba}_{0.3}\text{MnO}_3$ | 1.1 | 123 |
| 14 | Magnetization switching through spin-Hall-effect-induced chiral domain wall propagation. <i>Physical Review B</i> , 2014, 89, . | 1.1 | 121 |
| 15 | High Spin Hall Conductivity in Large-Area Type-II Dirac Semimetal PtTe ₂ . <i>Advanced Materials</i> , 2020, 32, e2000513. | 11.1 | 117 |
| 16 | Interplay between Different Magnetisms in Cr-Doped Topological Insulators. <i>ACS Nano</i> , 2013, 7, 9205-9212. | 7.3 | 114 |
| 17 | Revelation of Topological Surface States in Bi ₂ Se ₃ Thin Films by <i>In Situ</i> Al Passivation. <i>ACS Nano</i> , 2012, 6, 295-302. | 7.3 | 102 |
| 18 | Room-Temperature Skyrmions in an Antiferromagnet-Based Heterostructure. <i>Nano Letters</i> , 2018, 18, 980-986. | 4.5 | 98 |

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|----|---|------|-----------|
| 19 | Electric Field-Induced Creation and Directional Motion of Domain Walls and Skyrmion Bubbles. Nano Letters, 2019, 19, 353-361. | 4.5 | 97 |
| 20 | Spin pumping and inverse Rashba-Edelstein effect in NiFe/Ag/Bi and NiFe/Ag/Sb. Journal of Applied Physics, 2015, 117, . | 1.1 | 96 |
| 21 | All-electrical manipulation of magnetization dynamics in a ferromagnet by antiferromagnets with anisotropic spin Hall effects. Physical Review B, 2015, 92, . | 1.1 | 95 |
| 22 | Thermal generation, manipulation and thermoelectric detection of skyrmions. Nature Electronics, 2020, 3, 672-679. | 13.1 | 86 |
| 23 | Electric-field control of skyrmions in multiferroic heterostructure via magnetoelectric coupling. Nature Communications, 2021, 12, 322. | 5.8 | 83 |
| 24 | Manipulating Surface-Related Ferromagnetism in Modulation-Doped Topological Insulators. Nano Letters, 2013, 13, 4587-4593. | 4.5 | 77 |
| 25 | Electric-Field Control of Ferromagnetism in Mn-Doped ZnO Nanowires. Nano Letters, 2014, 14, 1823-1829. | 4.5 | 76 |
| 26 | Research Update: Spin transfer torques in permalloy on monolayer MoS ₂ . APL Materials, 2016, 4, . | 2.2 | 75 |
| 27 | Reduced spin-Hall effects from magnetic proximity. Physical Review B, 2015, 91, . | 1.1 | 74 |
| 28 | Dynamic response of an artificial square spin ice. Physical Review B, 2016, 93, . | 1.1 | 71 |
| 29 | Large Spin-Wave Bullet in a Ferrimagnetic Insulator Driven by the Spin Hall Effect. Physical Review Letters, 2016, 116, 057601. | 2.9 | 66 |
| 30 | Interface-driven spin-torque ferromagnetic resonance by Rashba coupling at the interface between nonmagnetic materials. Physical Review B, 2016, 93, . | 1.1 | 65 |
| 31 | Observation of unconventional anomalous Hall effect in epitaxial CrTe thin films. Nano Research, 2018, 11, 3116-3121. | 5.8 | 63 |
| 32 | Extreme sensitivity of the Griffiths phase to magnetic field in single crystal $\text{La}_{0.73}\text{Ba}_{0.27}\text{MnO}_3$. Physical Review B, 2019, 100, 040401. | 1.1 | 60 |
| 33 | Physi A Spin-Orbit Torque Memristive Device. Advanced Electronic Materials, 2019, 5, 1800782. | 2.6 | 51 |
| 34 | Spin waves in micro-structured yttrium iron garnet nanometer-thick films. Journal of Applied Physics, 2015, 117, . | 1.1 | 50 |
| 35 | Topology-Dependent Brownian Gyromotion of a Single Skyrmion. Physical Review Letters, 2020, 125, 027206. | 2.9 | 50 |
| 36 | Driving and detecting ferromagnetic resonance in insulators with the spin Hall effect. Physical Review B, 2015, 92, . | 1.1 | 48 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Spin pumping and inverse spin Hall effects—Insights for future spin-orbitronics (invited). Journal of Applied Physics, 2015, 117, . | 1.1 | 47 |
| 38 | Correlation between phase competition and the nucleation of a Griffiths-like phase in $(\text{La}_{1-y}\text{Pr}_y)_{0.7}\text{Ca}_{0.3}\text{Mn}_{16/18}\text{O}_3$. Europhysics Letters, 2008, 84, 47009. | 0.7 | 45 |
| 39 | Generation of magnetic skyrmion bubbles by inhomogeneous spin Hall currents. Physical Review B, 2016, 93, . | 1.1 | 45 |
| 40 | Perspective: Interface generation of spin-orbit torques. Journal of Applied Physics, 2016, 120, . | 1.1 | 42 |
| 41 | Mobile Néel skyrmions at room temperature: status and future. AIP Advances, 2016, 6, . | 0.6 | 38 |
| 42 | Critical behavior and transport properties of single crystal $\langle \text{mml:math} \text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"} \rangle$ | | |

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|----|--|-----|-----------|
| 55 | Coexistence of colossal magnetoresistance, a Griffiths-like phase, and a ferromagnetic insulating ground state in single crystal $\text{La}_{0.73}\text{Ba}_{0.27}\text{MnO}_3$. <i>Journal of Applied Physics</i> , 2010, 107, . | 1.1 | 17 |
| 56 | Electrically Reconfigurable 3D Spin-Orbitronics. <i>Advanced Functional Materials</i> , 2021, 31, 2007485. | 7.8 | 16 |
| 57 | Imaging the spin chirality of ferrimagnetic Néel skyrmions stabilized on topological antiferromagnetic Mn_3Sn . <i>Physical Review Materials</i> , 2021, 5, . | 0.9 | 16 |
| 58 | Size analysis of sub-resolution objects by Kerr microscopy. <i>Applied Physics Letters</i> , 2018, 112, . | 1.5 | 14 |
| 59 | Generation and Hall effect of skyrmions enabled using nonmagnetic point contacts. <i>Physical Review B</i> , 2019, 100, . | 1.1 | 14 |
| 60 | Rapid Kerr imaging characterization of the magnetic properties of two-dimensional ferromagnetic Fe_3GeTe_2 . <i>Applied Physics Letters</i> , 2020, 117, . | 1.5 | 14 |
| 61 | New Pathways Towards Efficient Metallic Spin Hall Spintronics. <i>Spin</i> , 2015, 05, 1530005. | 0.6 | 13 |
| 62 | Electrical Probing of Magnetic Phase Transition and Domain Wall Motion in Single-Crystalline Mn_5Ge_3 Nanowire. <i>Nano Letters</i> , 2012, 12, 6372-6379. | 4.5 | 12 |
| 63 | Rare-Earth Permanent Magnet SmCo_5 for Chiral Interfacial Spin-Orbitronics. <i>Advanced Functional Materials</i> , 2021, 31, 2104426. | 7.8 | 12 |
| 64 | The 20-nm Skyrmion Generated at Room Temperature by Spin-Orbit Torques. <i>Chinese Physics Letters</i> , 2022, 39, 017501. | 1.3 | 12 |
| 65 | Fully Compensated Synthetic Antiferromagnets with Pronounced Anomalous Hall and Magneto-Optical Responses. <i>Physical Review Applied</i> , 2021, 16, . | 1.5 | 11 |
| 66 | Entropy changes accompanying the magnetic phase transitions in low Si-doped $\text{Ce}_2\text{Fe}_{17-x}\text{Si}_x$ Alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 930-935. | 1.0 | 10 |
| 67 | All-electrical detection of spin dynamics in magnetic antidot lattices by the inverse spin Hall effect. <i>Applied Physics Letters</i> , 2016, 108, 052403. | 1.5 | 9 |
| 68 | Spin-Torque Switching in Rare-Earth-Free Compensated Ferrimagnet Mn_4N Films. <i>Advanced Electronic Materials</i> , 2022, 8, . | 2.6 | 8 |
| 69 | Mapping the domain wall pinning profile by stochastic imaging reconstruction. <i>Physical Review B</i> , 2013, 87, . | 1.1 | 7 |
| 70 | Optimized growth of compensated ferrimagnetic insulator $\text{Gd}_3\text{Fe}_5\text{O}_{12}$ with a perpendicular magnetic anisotropy*. <i>Chinese Physics B</i> , 2021, 30, 097503. | 0.7 | 7 |
| 71 | Critical behavior from the anomalous Hall effect in $(\text{GaMn})\text{As}$. <i>Physical Review B</i> , 2009, 80, . | 1.1 | 5 |
| 72 | Atomic-scale insights into quantum-order parameters in bismuth-doped iron garnet. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 5 |

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|----|--|-----|-----------|
| 73 | Anomalous field dependence of the inverse magnetocaloric effect in Ce(Fe _{0.93} Ru _{0.07}) ₂ . Journal of Magnetism and Magnetic Materials, 2008, 320, 2144-2148. | 1.0 | 4 |
| 74 | Versatile Fabrication of Self-Aligned Nanoscale Hall Devices Using Nanowire Masks. Nano Letters, 2016, 16, 3109-3115. | 4.5 | 4 |
| 75 | Memristors: A Spin-Orbit Torque Memristive Device (Adv. Electron. Mater. 4/2019). Advanced Electronic Materials, 2019, 5, 1970022. | 2.6 | 4 |
| 76 | Utilizing spin currents from the dual surfaces of a heavy metal Pt layer for simultaneous spin-torque switching in FeTb/Pt/FeTb trilayers. Applied Physics Letters, 2021, 118, 212406. | 1.5 | 4 |
| 77 | Absence of spin Hall magnetoresistance in Pt multilayers. Physical Review B, 2021, 103, . | 1.1 | 0 |
| 78 | Fluctuations in nanoscale magnetoelectronics devices. Journal of Applied Physics, 2012, 112, 094302. | 1.1 | 2 |
| 79 | Correlation between the nucleation of a Griffiths-like Phase and Colossal Magnetoresistance across the compositional metal-insulator boundary in La _{1-x} CaxMnO ₃ . Journal of Physics: Conference Series, 2010, 200, 012072. | 0.3 | 1 |
| 80 | Field-dependent ac susceptibility of Ce ₂ Fe ₁₇ . Journal of Physics Condensed Matter, 2009, 21, 026018. | 0.7 | 0 |
| 81 | Electric manipulation of skyrmions in metals and insulators. , 2015, , . | | 0 |
| 82 | Domain behavior in functional materials studied using Lorentz microscopy. Microscopy and Microanalysis, 2016, 22, 1680-1681. | 0.2 | 0 |
| 83 | Imaging Magnetic Domains in Functional Nanoscale Heterostructures using Lorentz microscopy. Microscopy and Microanalysis, 2018, 24, 910-911. | 0.2 | 0 |
| 84 | Imaging Magnetization Switching Induced by Spin-Orbit Torque in Perpendicularly Magnetized Ta/CoFeB Structure. IEEE Transactions on Magnetics, 2020, 56, 1-6. | 1.2 | 0 |
| 85 | Nonvolatile Magnetic Memory Combined With AND/NAND Boolean Logic Gates Based on Geometry-Controlled Magnetization Switching. IEEE Magnetics Letters, 2021, 12, 1-5. | 0.6 | 0 |
| 86 | Two-terminal current-in-plane giant magnetoresistance devices driven by the spin-orbit torque. Applied Physics Letters, 2021, 119, 192403. | 1.5 | 0 |