

Ireneusz Weymann

List of Publications by Year in descending order

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Version: 2024-02-01

129
papers

2,466
citations

185998

28
h-index

233125

45
g-index

129
all docs

129
docs citations

129
times ranked

1167
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | From giant magnetoresistance to current-induced switching by spin transfer. <i>Physical Review B</i> , 2005, 72, . | 1.1 | 156 |
| 2 | Tunnel magnetoresistance of quantum dots coupled to ferromagnetic leads in the sequential and cotunneling regimes. <i>Physical Review B</i> , 2005, 72, . | 1.1 | 128 |
| 3 | Emergent SU(4) Kondo physics in a spin-charge-entangled double quantum dot. <i>Nature Physics</i> , 2014, 10, 145-150. | 6.5 | 114 |
| 4 | Universal Fermi liquid crossover and quantum criticality in a mesoscopic system. <i>Nature</i> , 2015, 526, 237-240. | 13.7 | 87 |
| 5 | Universality of the Kondo Effect in Quantum Dots with Ferromagnetic Leads. <i>Physical Review Letters</i> , 2011, 107, 176808. | 2.9 | 82 |
| 6 | Spin effects in single-electron tunnelling. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 423202. | 0.7 | 77 |
| 7 | Spin effects in transport through single-molecule magnets in the sequential and cotunneling regimes. <i>Physical Review B</i> , 2009, 79, . | 1.1 | 70 |
| 8 | Simulating Hybrid Circuits of Single-Electron Transistors and Field-Effect Transistors. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 6467-6472. | 0.8 | 67 |
| 9 | Effects of different geometries on the conductance, shot noise, and tunnel magnetoresistance of double quantum dots. <i>Physical Review B</i> , 2008, 78, . | 1.1 | 64 |
| 10 | Zero-bias anomaly in cotunneling transport through quantum-dot spin valves. <i>Physical Review B</i> , 2005, 72, . | 1.1 | 57 |
| 11 | Nonequilibrium Steady-State Transport in Quantum Impurity Models: A Thermofield and Quantum Quench Approach Using Matrix Product States. <i>Physical Review Letters</i> , 2018, 121, 137702. | 2.9 | 56 |
| 12 | Interplay of the Kondo Effect and Spin-Polarized Transport in Magnetic Molecules, Adatoms, and Quantum Dots. <i>Physical Review Letters</i> , 2011, 106, 126602. | 2.9 | 51 |
| 13 | Spin thermoelectric effects in Kondo quantum dots coupled to ferromagnetic leads. <i>Physical Review B</i> , 2013, 88, . | 1.1 | 48 |
| 14 | Finite-temperature spintronic transport through Kondo quantum dots: Numerical renormalization group study. <i>Physical Review B</i> , 2011, 83, . | 1.1 | 42 |
| 15 | Spin diode behavior in transport through single-molecule magnets. <i>Europhysics Letters</i> , 2010, 89, 18003. | 0.7 | 41 |
| 16 | Spin-resolved Andreev transport through double-quantum-dot Cooper pair splitters. <i>Physical Review B</i> , 2015, 91, . | 1.1 | 41 |
| 17 | Transport properties of a hybrid Majorana wire-quantum dot system with ferromagnetic contacts. <i>Physical Review B</i> , 2017, 95, . | 1.1 | 41 |
| 18 | Cotunneling through quantum dots coupled to magnetic leads: Zero-bias anomaly for noncollinear magnetic configurations. <i>Physical Review B</i> , 2007, 75, . | 1.1 | 39 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Negative tunnel magnetoresistance and differential conductance in transport through double quantum dots. <i>Physical Review B</i> , 2009, 80, . | 1.1 | 37 |
| 20 | Proximity effect on spin-dependent conductance and thermopower of correlated quantum dots. <i>Physical Review B</i> , 2014, 89, . | 1.1 | 37 |
| 21 | Constructive influence of the induced electron pairing on the Kondo state. <i>Scientific Reports</i> , 2016, 6, 23336. | 1.6 | 36 |
| 22 | Dark states in transport through triple quantum dots: The role of cotunneling. <i>Physical Review B</i> , 2011, 83, . | 1.1 | 35 |
| 23 | Transport characteristics of ferromagnetic single-electron transistors. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 236, 651-660. | 0.7 | 34 |
| 24 | Phase diagram and excitations of a Shiba molecule. <i>Physical Review B</i> , 2014, 90, . | 1.1 | 31 |
| 25 | Interplay between correlations and Majorana mode in proximitized quantum dot. <i>Scientific Reports</i> , 2018, 8, 15717. | 1.6 | 31 |
| 26 | Spin diode based on a single-walled carbon nanotube. <i>Applied Physics Letters</i> , 2008, 92, . | 1.5 | 30 |
| 27 | Two-stage Kondo effect in T-shaped double quantum dots with ferromagnetic leads. <i>Physical Review B</i> , 2015, 91, . | 1.1 | 30 |
| 28 | Influence of magnetic anisotropy on the Kondo effect and spin-polarized transport through magnetic molecules, adatoms, and quantum dots. <i>Physical Review B</i> , 2011, 84, . | 1.1 | 29 |
| 29 | Superconducting proximity effect and zero-bias anomaly in transport through quantum dots weakly attached to ferromagnetic leads. <i>Physical Review B</i> , 2014, 89, . | 1.1 | 29 |
| 30 | Cotunneling through a quantum dot coupled to ferromagnetic leads with noncollinear magnetizations. <i>European Physical Journal B</i> , 2005, 46, 289-299. | 0.6 | 28 |
| 31 | Perfect spin polarization in T-shaped double quantum dots due to the spin-dependent Fano effect. <i>Physical Review B</i> , 2014, 90, . | 1.1 | 28 |
| 32 | Thermopower of strongly correlated T-shaped double quantum dots. <i>Physical Review B</i> , 2016, 93, . | 1.1 | 28 |
| 33 | Effect of intrinsic spin relaxation on the spin-dependent cotunneling transport through quantum dots. <i>Physical Review B</i> , 2006, 73, . | 1.1 | 27 |
| 34 | Theory of shot noise in single-walled metallic carbon nanotubes weakly coupled to nonmagnetic and ferromagnetic leads. <i>Physical Review B</i> , 2007, 76, . | 1.1 | 27 |
| 35 | Transport through single-wall metallic carbon nanotubes in the cotunneling regime. <i>Physical Review B</i> , 2008, 78, . | 1.1 | 25 |
| 36 | An electrically controlled quantum dot based spin current injector. <i>Nanoscale</i> , 2012, 4, 3635. | 2.8 | 25 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Manifestation of the shape and edge effects in spin-resolved transport through graphene quantum dots. Physical Review B, 2012, 85, . | 1.1 | 24 |
| 38 | Majorana-Kondo interplay in T-shaped double quantum dots. Physical Review B, 2020, 101, . | 1.1 | 23 |
| 39 | Transport through two-level quantum dots weakly coupled to ferromagnetic leads. Journal of Physics Condensed Matter, 2007, 19, 096208. | 0.7 | 22 |
| 40 | Underscreened Kondo effect in $S=1$ magnetic quantum dots: Exchange, anisotropy, and temperature effects. Physical Review B, 2012, 86, . | 1.1 | 22 |
| 41 | SU(4) Kondo effect in double quantum dots with ferromagnetic leads. Physical Review B, 2018, 97, . | 1.1 | 22 |
| 42 | Spin Seebeck effect in quantum dot side-coupled to topological superconductor. Journal of Physics Condensed Matter, 2017, 29, 095301. | 0.7 | 20 |
| 43 | Kondo Cloud in a Superconductor. Physical Review Letters, 2021, 127, 186804. | 2.9 | 20 |
| 44 | Negative differential conductance and magnetoresistance oscillations due to spin accumulation in ferromagnetic double-island devices. Physical Review B, 2006, 73, . | 1.1 | 19 |
| 45 | Spin-resolved thermal signatures of Majorana-Kondo interplay in double quantum dots. Physical Review B, 2022, 105, . | 1.1 | 18 |
| 46 | Current cross-correlations in double quantum dot based Cooper pair splitters with ferromagnetic leads. Journal of Physics Condensed Matter, 2017, 29, 195302. | 0.7 | 17 |
| 47 | Shot noise and tunnel magnetoresistance in multilevel quantum dots: Effects of cotunneling. Physical Review B, 2008, 77, . | 1.1 | 16 |
| 48 | Underscreened Kondo effect in quantum dots coupled to ferromagnetic leads. Physical Review B, 2010, 81, . | 1.1 | 16 |
| 49 | Spin-polarized transport through weakly coupled double quantum dots in the Coulomb-blockade regime. Physical Review B, 2007, 75, . | 1.1 | 15 |
| 50 | Kondo physics in double quantum dot based Cooper pair splitters. Physical Review B, 2017, 96, . | 1.1 | 15 |
| 51 | Macroscopic description of spin transfer torque. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 126, 271-274. | 1.7 | 13 |
| 52 | Cotunneling through two-level quantum dots weakly coupled to ferromagnetic leads. Europhysics Letters, 2006, 76, 1200-1206. | 0.7 | 13 |
| 53 | Theory of frequency-dependent spin current noise through correlated quantum dots. Physical Review B, 2010, 81, . | 1.1 | 13 |
| 54 | Transport through graphenelike flakes with intrinsic spin-orbit interactions. Physical Review B, 2015, 92, . | 1.1 | 13 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Current cross-correlations and waiting time distributions in Andreev transport through Cooper pair splitters based on a triple quantum dot system. <i>Physical Review B</i> , 2020, 101, . | 1.1 | 13 |
| 56 | Andreev transport in a correlated ferromagnet-quantum-dot-superconductor device. <i>Physical Review B</i> , 2015, 92, . | 1.1 | 12 |
| 57 | Spin effects in transport through triangular quantum dot molecule in different geometrical configurations. <i>Physical Review B</i> , 2015, 92, . | 1.1 | 12 |
| 58 | Interplay between electron pairing and Dicke effect in triple quantum dot structures. <i>Physical Review B</i> , 2017, 95, . | 1.1 | 12 |
| 59 | Asymmetry-induced effects in Kondo quantum dots coupled to ferromagnetic leads. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 075301. | 0.7 | 11 |
| 60 | Spin related effects in magnetic mesoscopic systems. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 236, 246-252. | 0.7 | 10 |
| 61 | Kondo effect in a quantum dot coupled to ferromagnetic leads and side-coupled to a nonmagnetic reservoir. <i>Physical Review B</i> , 2010, 81, . | 1.1 | 10 |
| 62 | Probing the Rashba effect via the induced magnetization around a Kondo impurity. <i>Physical Review B</i> , 2013, 87, . | 1.1 | 10 |
| 63 | Splitting efficiency and interference effects in a Cooper pair splitter based on a triple quantum dot with ferromagnetic contacts. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 10 |
| 64 | Quench dynamics of spin in quantum dots coupled to spin-polarized leads. <i>Physical Review B</i> , 2019, 100, . | 1.1 | 10 |
| 65 | Temperature dependence of electronic transport through molecular magnets in the Kondo regime. <i>Physical Review B</i> , 2012, 86, . | 1.1 | 9 |
| 66 | Nontrivial magnetoresistive behavior of a single-wall carbon nanotube with an attached molecular magnet. <i>Physical Review B</i> , 2015, 92, . | 1.1 | 9 |
| 67 | Thermalization and dynamics in the single-impurity Anderson model. <i>Physical Review B</i> , 2015, 92, . | 1.1 | 9 |
| 68 | Boosting spin-caloritronic effects by attractive correlations in molecular junctions. <i>Scientific Reports</i> , 2016, 6, 19236. | 1.6 | 9 |
| 69 | Interplay of the Kondo effect with the induced pairing in electronic and caloric properties of T-shaped double quantum dots. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 9 |
| 70 | Nonlocal pairing as a source of spin exchange and Kondo screening. <i>Physical Review B</i> , 2019, 99, . | 1.1 | 9 |
| 71 | Dynamical quantum phase transitions in a mesoscopic superconducting system. <i>Physical Review B</i> , 2022, 105, . | 1.1 | 9 |
| 72 | Theory of ac spin current noise and spin conductance through a quantum dot in the Kondo regime: Equilibrium case. <i>Physical Review B</i> , 2011, 84, . | 1.1 | 8 |

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|----|---|-----|-----------|
| 73 | Transverse anisotropy effects on spin-resolved transport through large-spin molecules. <i>Physical Review B</i> , 2014, 90, . | 1.1 | 8 |
| 74 | Spin-resolved dynamical conductance of a correlated large-spin magnetic molecule. <i>Physical Review B</i> , 2017, 95, . | 1.1 | 8 |
| 75 | Transient effects in a double quantum dot sandwiched laterally between superconducting and metallic leads. <i>Physical Review B</i> , 2021, 103, . | 1.1 | 8 |
| 76 | Quench dynamics of a correlated quantum dot sandwiched between normal-metal and superconducting leads. <i>Physical Review B</i> , 2021, 103, . | 1.1 | 8 |
| 77 | Large Voltage-Tunable Spin Valve Based on a Double Quantum Dot. <i>Physical Review Applied</i> , 2021, 16, . | 1.5 | 8 |
| 78 | Majorana mode leaking into a spin-charge entangled double quantum dot. <i>Physical Review B</i> , 2021, 104, . | 1.1 | 8 |
| 79 | Strong spin Seebeck effect in Kondo T-shaped double quantum dots. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 055303. | 0.7 | 7 |
| 80 | Spectral properties and the Kondo effect of cobalt adatoms on silicene. <i>Physical Review B</i> , 2017, 96, . | 1.1 | 7 |
| 81 | Magnetization dynamics in a Majorana-wire“quantum-dot setup. <i>Physical Review B</i> , 2021, 103, . | 1.1 | 7 |
| 82 | Spin-Dependent Transport Through Graphene Quantum Dots. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 7525-7528. | 0.9 | 6 |
| 83 | Magnetic Kondo regimes in a frustrated half-filled trimer. <i>Physical Review B</i> , 2020, 102, . | 1.1 | 6 |
| 84 | Eightfold shell-filling patterns in spin-dependent transport through double-wall carbon nanotube quantum dots. <i>Physical Review B</i> , 2010, 82, . | 1.1 | 5 |
| 85 | The tunnel magnetoresistance in chains of quantum dots weakly coupled to external leads. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 015301. | 0.7 | 5 |
| 86 | Pauli spin blockade in double molecular magnets. <i>Physical Review B</i> , 2016, 94, . | 1.1 | 5 |
| 87 | Dynamical spin accumulation in large-spin magnetic molecules. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 5 |
| 88 | Andreev transport through single-molecule magnets. <i>Physical Review B</i> , 2018, 98, . | 1.1 | 5 |
| 89 | Detection of Spin Reversal via Kondo Correlation in Hybrid Carbon Nanotube Quantum Dots. <i>ACS Nano</i> , 2019, 13, 10029-10035. | 7.3 | 5 |
| 90 | Spin Seebeck effect of correlated magnetic molecules. <i>Scientific Reports</i> , 2021, 11, 9192. | 1.6 | 5 |

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|-----|--|-----|-----------|
| 91 | Effect of the intrinsic spin-orbit interaction on the tunnel magnetoresistance in graphenelike nanoflakes. <i>Physical Review B</i> , 2016, 94, . | 1.1 | 4 |
| 92 | Dark states in spin-polarized transport through triple quantum dot molecules. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 4 |
| 93 | Spin-dependent transport through double-island single-electron devices. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 239-242. | 0.7 | 3 |
| 94 | Interplay of the Kondo effect and spin-polarized transport in nanoscopic systems with uniaxial magnetic anisotropy. <i>Journal of Applied Physics</i> , 2011, 109, 07C732. | 1.1 | 3 |
| 95 | Noise of a Chargeless Fermi Liquid. <i>Physical Review Letters</i> , 2018, 120, 016803. | 2.9 | 3 |
| 96 | Manipulating spins of magnetic molecules: Hysteretic behavior with respect to bias voltage. <i>Europhysics Letters</i> , 2018, 121, 38006. | 0.7 | 3 |
| 97 | Majorana-Kondo competition in a cross-shaped double quantum dot-topological superconductor system. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 549, 168935. | 1.0 | 3 |
| 98 | Electronic transport in ferromagnetic double-island single-electron devices. <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, E1477-E1479. | 1.0 | 2 |
| 99 | Frequency-dependent conductance of Kondo quantum dots coupled to ferromagnetic leads. <i>Journal of Applied Physics</i> , 2011, 109, 07C704. | 1.1 | 2 |
| 100 | Tunnel magnetoresistance of a supramolecular spin valve. <i>Europhysics Letters</i> , 2019, 125, 18004. | 0.7 | 2 |
| 101 | Transport through Single-Wall Carbon Nanotubes Weakly Coupled to External Leads. <i>Acta Physica Polonica A</i> , 2009, 115, 296-298. | 0.2 | 2 |
| 102 | Influence of Magnetic Field on Dark States in Transport through Triple Quantum Dots. <i>Acta Physica Polonica A</i> , 2017, 132, 108-111. | 0.2 | 2 |
| 103 | Title is missing!. <i>Journal of Superconductivity and Novel Magnetism</i> , 2003, 16, 225-228. | 0.5 | 1 |
| 104 | Tunnel magnetoresistance and linear conductance of double quantum dots strongly coupled to ferromagnetic leads. <i>Journal of Applied Physics</i> , 2015, 117, 17D704. | 1.1 | 1 |
| 105 | Current Suppression in Transport Through Triple Quantum Dots Coupled to Ferromagnetic Leads. <i>Acta Physica Polonica A</i> , 2015, 127, 460-462. | 0.2 | 1 |
| 106 | Giant superconducting proximity effect on spintronic anisotropy. <i>Physical Review B</i> , 2019, 100, . | 1.1 | 1 |
| 107 | Magnetoresistive properties of a double magnetic molecule spin valve in different geometrical arrangements. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 480, 11-21. | 1.0 | 1 |
| 108 | Spectral properties of a Co-decorated quasi-two-dimensional GaSe layer. <i>Physical Review B</i> , 2020, 102, . | 1.1 | 1 |

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| 109 | Time-dependent spintronic anisotropy in magnetic molecules. <i>Physical Review B</i> , 2020, 101, . | 1.1 | 1 |
| 110 | Spin polarized cotunneling through a quantum dot. <i>Physica Status Solidi A</i> , 2003, 196, 113-116. | 1.7 | 0 |
| 111 | Current induced switching due to spin-transfer in spin valves: macroscopic model. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 97-100. | 0.8 | 0 |
| 112 | Cotunneling through a magnetic quantum dot coupled to ferromagnetic leads with noncollinear magnetizations. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 945-946. | 1.3 | 0 |
| 113 | Single- and double-island ferromagnetic single-electron transistors. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 126, 275-278. | 1.7 | 0 |
| 114 | Influence of intrinsic spin-flip processes on spin-polarized transport through quantum dots in the cotunneling regime. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 942-944. | 1.3 | 0 |
| 115 | Charge and spin transport through artificial atoms and molecules. <i>Journal of Physics: Conference Series</i> , 2008, 104, 012016. | 0.3 | 0 |
| 116 | The Magnetic Field Effects on Spin Polarization of T-Shaped Double Quantum Dots Coupled to Ferromagnetic Leads. <i>Acta Physica Polonica A</i> , 2015, 127, 222-224. | 0.2 | 0 |
| 117 | Spin-Dependent Transport through a Single-Wall Carbon Nanotube Quantum Dot with an S=1 Molecule. <i>Acta Physica Polonica A</i> , 2015, 127, 475-477. | 0.2 | 0 |
| 118 | Andreev Transport in Double Quantum Dot Cooper Pair Splitters in the Presence of External Magnetic Field. <i>Acta Physica Polonica A</i> , 2015, 127, 502-504. | 0.2 | 0 |
| 119 | Magnetic Field Effects on Tunnel Magnetoresistance of a Coupled Carbon-Nanotube-Molecular-Magnet System. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-4. | 1.2 | 0 |
| 120 | The SU(4) Kondo effect in double quantum dots coupled to ferromagnetic leads: A scaling analysis. , 2019, , . | | 0 |
| 121 | Spin Polarized Transport through Quantum Dots: Coulomb Blockade and Kondo Effect. <i>Acta Physica Polonica A</i> , 2003, 104, 165-177. | 0.2 | 0 |
| 122 | Spin-Polarized Transport through Quantum Dots in the Cotunneling Regime. <i>Acta Physica Polonica A</i> , 2008, 113, 529-532. | 0.2 | 0 |
| 123 | Signatures of Transverse Magnetic Anisotropy in Transport through a Large-Spin Molecule in the Kondo Regime. <i>Acta Physica Polonica A</i> , 2015, 128, 200-203. | 0.2 | 0 |
| 124 | Andreev Conductance through a Quantum Dot Strongly Coupled to Ferromagnetic and Superconducting Leads. <i>Acta Physica Polonica A</i> , 2017, 132, 143-145. | 0.2 | 0 |
| 125 | Andreev Transport through a Magnetic Molecule Weakly Coupled to Ferromagnetic Leads. <i>Acta Physica Polonica A</i> , 2018, 133, 594-596. | 0.2 | 0 |
| 126 | Dynamical Aspects of Magnetic Switching in a Single Molecule-Based Spin Valve. <i>Acta Physica Polonica A</i> , 2018, 133, 555-557. | 0.2 | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 127 | Spintronic transport through a double quantum dot-based spin valve with noncollinear magnetizations. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 546, 168788. | 1.0 | 0 |
| 128 | Spin-polarized transport in quadruple quantum dots attached to ferromagnetic leads. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 546, 168835. | 1.0 | 0 |
| 129 | Numerical renormalization group study of the Loschmidt echo in Kondo systems. <i>Scientific Reports</i> , 2022, 12, . | 1.6 | 0 |