

# Pedro Schlottmann

## List of Publications by Year in descending order

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132  
papers

2,744  
citations

201674

27  
h-index

189892

50  
g-index

132  
all docs

132  
docs citations

132  
times ranked

2252  
citing authors

#	ARTICLE	IF	CITATIONS
1	In-gap states of vortices at the surface of a topological insulator. <i>Physica C: Superconductivity and Its Applications</i> , 2022, 596, 1354047.	1.2	0
2	Slow crystalline electric field fluctuations in the Kondo lattice $\text{SmB}_6$ . <i>Physical Review B</i> , 2022, 105, .	3.2	4
3	Quasiparticle and Majorana states in spin-orbit coupled $\text{Sr}_2\text{O}_7$ : A study of $\text{Sr}_2\text{O}_7$ . <i>Physical Review B</i> , 2021, 103, .	1.5	1
4	Local density of states in a vortex at the surface of a topological insulator in a magnetic field. <i>European Physical Journal B</i> , 2021, 94, 1.	3.2	2
5	Ground state in proximity to a possible Kitaev spin liquid: The undistorted honeycomb iridate $\text{NaIrO}_3$ (0.60x0.80). <i>Physical Review B</i> , 2021, 104, .	3.2	3
6	Lattice flexibility in $\text{Ca}_3\text{O}_7$ : Control of electrical transport via anisotropic magnetostriction. <i>Physical Review B</i> , 2021, 104, .	1.8	3
7	Bound fermion states in pinned vortices in the surface states of a superconducting topological insulator. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 035604.	3.9	2
8	An STM Perspective on Hexaborides: Surface States of the Kondo Insulator $\text{SmB}_6$ . <i>Advanced Quantum Technologies</i> , 2021, 4, 2100102.	14.6	47
9	Linear and Nonlinear Two-Terminal Spin-Valve Effect from Chirality-Induced Spin Selectivity. <i>ACS Nano</i> , 2020, 14, 15983-15991.	5.2	4
10	Quest for quantum states via field-altering technology. <i>Npj Quantum Materials</i> , 2020, 5, .	3.2	0
11	Giant enhancement of the in-plane critical field for thin Al films via proximity coupling to a topological insulator. <i>Physical Review B</i> , 2020, 102, .	3.2	11
12	Physical properties of $\text{Sm}_2\text{O}_7$ single crystals. <i>Physical Review B</i> , 2019, 99, .	2.5	1
13	Edge singularities in the one-dimensional Bariev model. <i>Nuclear Physics B</i> , 2019, 949, 114808.	2.4	3
14	Instabilities of a Fermi Gas with Nested Fermi Surfaces. <i>Annalen Der Physik</i> , 2018, 530, 1700263.	20.1	134
15	The challenge of spin-orbit-tuned ground states in iridates: a key issues review. <i>Reports on Progress in Physics</i> , 2018, 81, 042502.	1.8	2
16	Exponents of Spectral Functions in the One-Dimensional Bose Gas. <i>Condensed Matter</i> , 2018, 3, 35.	1.8	6
17	Decoupling of magnetism and electric transport in single-crystal $\text{Sr}_2\text{A}_2\text{O}_7$ . <i>Physical Review B</i> , 2018, 30, 245801.	2.4	9
18	Theory of Electron Spin Resonance in Ferromagnetically Correlated Heavy Fermion Compounds. <i>Magnetochemistry</i> , 2018, 4, 27.		



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37	NMR relaxation in the topological Kondo insulator $\text{SmB}_6$ . Physical Review B, 2014, 90, .	3.2	4
38	Challenging our understanding of quantum criticality. Physical Review B, 2014, 90, .	0.4	3
39	Spin-density waves and the superconductivity dome in heavy electron systems with nested Fermi surfaces. Physical Review B, 2014, 89, .	3.2	4
40	Superfluid instability in ultra-cold gas of fermionic atoms with attractive potential in a one-dimensional trap. Journal of Physics: Conference Series, 2014, 529, 012013.	0.4	3
41	Pressure-driven Fermi surface reconstruction of chromium. Physical Review B, 2013, 88, .	3.2	3
42	Calculation of electric transport close to a Lifshitz transition in a high magnetic field. European Physical Journal B, 2013, 86, 1.	1.5	3
43	Tuning the $J$ state via electron doping and pressure in the double-layered iridate $\text{SrIr}_2\text{O}_7$ . Physical Review B, 2013, 87, .	3.2	50
44	THE CONTRADICTORY PHYSICAL PROPERTIES AND EXTREME ANISOTROPY OF $\text{Ca}_3\text{Ru}_2\text{O}_7$ . , 2013, , 179-214.		0
45	Observation of superconductivity and anomalous electrical resistivity in single-crystal $\text{IrTe}_2$ . Physical Review B, 2013, 87, .	3.2	8
46	Effects of spin-orbit interaction in the Hubbard chain with attractive interaction: Application to confined ultracold fermions. Physical Review B, 2013, 88, .	3.2	7
47	Microwave-induced excitations in the kagome system $\text{Pr}_3\text{Ga}_5\text{SiO}_{14}$ . Physical Review B, 2013, 88, .	3.2	6
48	Spin-orbit tuned metal-insulator transitions in single-crystal $\text{SrIr}_2\text{O}_7$ . Physical Review B, 2013, 87, .	3.2	102
49	Effects of Eu doping on $\text{SmB}_6$ . Physical Review B, 2012, 85, .	3.2	15
50	Fermi gas with attractive potential and spin $S = 5/2$ atoms with attractive potential in a one-dimensional trap: Response functions for superfluidity and FFLO signatures. Physical Review B, 2012, 85, .	3.2	27
51	for $S = 5/2$ atoms with attractive potential in a one-dimensional trap: Response functions for superfluidity and FFLO signatures. Physical Review B, 2012, 85, .	3.2	11
52	Magnetolectric effect in $\text{NdCrTiO}_3$ . Physical Review B, 2012, 85, .	3.2	61
53	PHASE SEPARATION AND FFLO PHASES IN ULTRACOLD GAS OF $S = 5/2$ ATOMS WITH ATTRACTIVE POTENTIAL IN A ONE-DIMENSIONAL TRAP. Modern Physics Letters B, 2012, 26, 1230009.	1.9	6
54	Lattice-driven magnetoresistivity and metal-insulator transition in single-layered iridates. Physical Review B, 2011, 84, .	3.2	171

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55	Magnetic anisotropy and geometrical frustration in the Ising spin-chain system Sr5Rh4O12. Journal of Applied Physics, 2011, 109, 07E164.	2.5	3
56	Electron doped Sr2IrO4 (O <sub>1-x</sub> ) <sub>2</sub> (0 ≤ x ≤ 0.04): Evolution of a disordered Jeff <sub>x</sub> = 1/2 Mott insulator into an exotic metallic state. Journal of Applied Physics, 2011, 109, . Thermally activated exchange narrowing of the Cd	2.5	20
57	fine structure in a single crystal of Ce fine structure in a single crystal of Ce fine structure in a single crystal of Ce	3.2	5
58	Magnon Excitation Spectrum in Ferromagnetic Quasicubic Manganites. IEEE Transactions on Magnetism, 2010, 46, 1295-1298.	2.1	1
59	Spin Coulomb Drag in a One-Dimensional Spin-Polarized Conductor. IEEE Transactions on Magnetism, 2010, 46, 1346-1349.	2.1	0
60	Pressure-induced insulating state in		

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73	Resistivity and Magnetoresistance of La-doped CeOs <sub>4</sub> Sb <sub>12</sub> and PrOs <sub>4</sub> Sb <sub>12</sub> . Journal of the Physical Society of Japan, 2008, 77, 148-152.	1.6	1
74	Non-Fermi-liquid behavior in nearly ferromagnetic crystals. Physical Review B, 2007, 76, .	3.2	89
75	Resistance and current-voltage characteristics of individual superconducting NbSe <sub>2</sub> nanowires. Physical Review B, 2007, 76, .	3.2	7
76	High-field suppression of in-gap states in the Kondo insulator SmB <sub>6</sub> . Physical Review B, 2007, 75, .	3.2	62
77	Canting of Spins in Manganites. IEEE Transactions on Magnetics, 2007, 43, 3085-3087.	2.1	3
78	Gd <sup>3+</sup> and Eu <sup>2+</sup> local environment in Ca <sub>1-x</sub> Eu <sub>x</sub> B <sub>6</sub> (0.0001 ≤ x ≤ 0.30) and Ca <sub>1-x</sub> Gd <sub>x</sub> B <sub>6</sub> (0.0001 ≤ x ≤ 0.01). Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1550-1555.	1.8	2
79	Coulomb-drag effect between two quantum wires: integrable models with long-range potentials. Philosophical Magazine, 2006, 86, 2469-2481.	1.6	2
80	Anomalies in the dynamical resistivity due to a quantum critical point. Physical Review B, 2006, 74, .	3.2	12
81	ESR study of the Eu <sup>2+</sup> g-value in the metallic phase of cubic hexaboride Ca <sub>1-x</sub> Eu <sub>x</sub> B <sub>6</sub> (0.15 ≤ x ≤ 1.00). Physical Review B, 2006, 73, .	3.2	2
82	Quasiparticle linewidth close to a quantum critical point: Crossover from non-Fermi liquid to Fermi liquid behavior. Physical Review B, 2006, 73, .	3.2	19
83	Observation of oscillatory magnetoresistance periodic in 1/Band Bin Ca <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . Physical Review B, 2006, 73, .	3.2	7
84	Gradual transition from insulator to semimetal of Ca <sub>1-x</sub> Eu <sub>x</sub> B <sub>6</sub> with increasing Eu concentration. Physical Review B, 2005, 71, .	3.2	17
85	Colossal Magnetoresistance by Avoiding a Ferromagnetic State in the Mott System Ca <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . Physical Review Letters, 2005, 95, 017203.	7.8	41
86	Double exchange and charge fluctuations in CrO <sub>2</sub> . Journal of Applied Physics, 2004, 95, 7471-7473.	2.5	1
87	Thermal expansion in a system with nested Fermi surface. Journal of Applied Physics, 2004, 95, 7216-7218.	2.5	8
88	Orbitally driven behaviour: Mott transition, quantum oscillations and colossal magnetoresistance in bilayered Ca <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . New Journal of Physics, 2004, 6, 159-159.	2.9	26
89	Non-Fermi-liquid behavior in a system with a nested Fermi surface. Physical Review B, 2003, 68, .	3.2	27
90	Bariev model for correlated hopping with crystalline field splitting. Physical Review B, 2003, 67, .	3.2	0

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91	tâˆ™Jring with an Anderson impurity: A model for a quantum dot. Physical Review B, 2003, 67, .	3.2	4
92	Thermodynamics of a magnetic impurity in a small metallic grain. Journal of Applied Physics, 2003, 93, 8358-8360.	2.5	0
93	Exact solution of the Bariev model for correlated hopping with hard-core repulsion. Physical Review B, 2002, 66, .	3.2	6
94	Boundary defects in integrable quantum spin ladders. Physical Review B, 2002, 65, .	3.2	2
95	Specific features of a magnetic impurity in a correlated electron model with Ising anisotropy. Physical Review B, 2002, 66, .	3.2	1
96	Thermodynamics of the one-dimensional multicomponent Bariev model for correlated hopping. Nuclear Physics B, 2002, 634, 571-590.	2.5	9
97	Integrable one-dimensional N-component fermion model with correlated hopping and hard-core repulsion. Nuclear Physics B, 2002, 647, 539-564.	2.5	4
98	Quantum critical points of an anisotropic multichannel Kondo impurity. Journal of Applied Physics, 2001, 89, 7183-7185.	2.5	5
99	Kondo effect in a host with fractional statistics:â€fAbsence of Kondo logarithms. Physical Review B, 2001, 64, .	3.2	1
100	Mean-field approach for the B phase of (La,Ca)MnO3. Journal of Applied Physics, 2001, 89, 6624-6626.	2.5	0
101	Exact solution of Heisenberg-liquid models with long-range coupling. Physical Review B, 2001, 63, .	3.2	1
102	Boundary defect in a spin ladder. Journal of Applied Physics, 2001, 89, 7335-7337.	2.5	1
103	Phase separation in inhomogeneous mixed-valence systems: Application to manganites. Journal of Applied Physics, 2000, 87, 5022-5024.	2.5	2
104	Fluctuation induced precriticality in heavy fermions. Journal of Applied Physics, 2000, 87, 5140-5142.	2.5	10
105	Impurity model for Mn ions: Possibility of charge order and lattice distortions. Journal of Applied Physics, 1999, 85, 5423-5425.	2.5	0
106	One-dimensional heavy fermion lattice model. Journal of Applied Physics, 1999, 85, 5335-5337.	2.5	0
107	Simple model for non-Fermi-liquid behavior induced by antiferromagnetic spin fluctuations. Physical Review B, 1999, 59, 12379-12389.	3.2	26
108	Exact solution for a degenerate Anderson impurity in the limit embedded into a correlated host. European Physical Journal B, 1998, 5, 325-335.	1.5	9

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109	Exact solution for a one-dimensional multichannel model of correlated electrons with an Anderson-like impurity. <i>Journal of Physics A</i> , 1998, 31, 1981-1987.	1.6	6
110	Exact Results for Highly Correlated Electron Systems in One Dimension. <i>International Journal of Modern Physics B</i> , 1997, 11, 355-667.	2.0	129
111	Integrable supersymmetric t-J model with magnetic impurity. <i>Physical Review B</i> , 1997, 55, 5027-5036.	3.2	55
112	Low-temperature specific heat of the degenerate supersymmetric t-J model in one dimension. <i>Journal of Applied Physics</i> , 1996, 79, 6605.	2.5	1
113	Kondo hole states in Kondo insulators. <i>European Physical Journal D</i> , 1996, 46, 1895-1896.	0.4	1
114	Persistent current oscillations in a metallic ring embedding a quantum dot. <i>European Physical Journal D</i> , 1996, 46, 2409-2410.	0.4	3
115	Metal-insulator transition in dirty Kondo insulators. <i>Journal of Applied Physics</i> , 1996, 79, 6414.	2.5	17
116	Ground-state and elemental excitations of the one-dimensional multicomponent Fermi gas with delta-function interaction. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 1359-1378.	1.8	42
117	Effects of doping in Kondo insulators (invited). <i>Journal of Applied Physics</i> , 1994, 75, 7044-7049.	2.5	22
118	Ground-state properties and excitations of an integrable one-dimensional model with $\delta$ -function interaction involving several bands. <i>Journal of Applied Physics</i> , 1994, 75, 6731-6733.	2.5	1
119	Perturbative approximation scheme for isolated impurity bonds in the two-dimensional spin-1/2 Heisenberg antiferromagnet. <i>Journal of Applied Physics</i> , 1994, 75, 5532-5534.	2.5	3
120	Thermodynamics of the one-dimensional multicomponent Fermi gas with a delta-function interaction. <i>Journal of Physics Condensed Matter</i> , 1993, 5, 5869-5886.	1.8	29
121	Multichannel Kondo problem and some applications. <i>Advances in Physics</i> , 1993, 42, 641-682.	14.4	157
122	The heavy fermion compound YbAgCu <sub>4</sub> . <i>Journal of Applied Physics</i> , 1993, 73, 5412-5414.	2.5	34
123	Ferromagnetic instability in a mean-field slave-boson approach for the Anderson lattice. <i>Journal of Applied Physics</i> , 1993, 73, 5400-5402.	2.5	17
124	Groundstate properties of the degenerate supersymmetric t-J model with crystalline field splitting in one dimension. <i>Journal of Applied Physics</i> , 1993, 73, 6645-6647.	2.5	1
125	Thermodynamics of the degenerate supersymmetric t-J model in one dimension. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 7565-7578.	1.8	19
126	Applications of the overcompensated channel Kondo problem. <i>Journal of Applied Physics</i> , 1991, 70, 5806-5808.	2.5	5

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127	Local density of states in the vicinity of a Kondo hole. Journal of Applied Physics, 1991, 70, 5803-5805.	2.5	38
128	A simple theory of the Kondo hole. Journal of Applied Physics, 1991, 69, 5478-5480.	2.5	60
129	Overcompensated impurities in antiferromagnetic Heisenberg chains. Journal of Applied Physics, 1991, 70, 6071-6073.	2.5	0
130	Integrable narrow-band model with possible relevance to heavy-fermion systems. Physical Review B, 1987, 36, 5177-5185.	3.2	277
131	Thermodynamics of the SU(N) Anderson impurity. European Physical Journal B, 1984, 54, 207-213.	1.5	32
132	Bethe-ansatz solution of the groundstate of a model for mixed-valent Ce and Yb impurities in metals. European Physical Journal B, 1982, 49, 109-114.	1.5	66