

Roman Movshovich

List of Publications by Year in descending order

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102
papers

5,941
citations

126907

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69250

77
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103
all docs

103
docs citations

103
times ranked

3289
citing authors

#	ARTICLE	IF	CITATIONS
1	Heavy-fermion superconductivity in CeCoIn ₅ at 2.3 K. Journal of Physics Condensed Matter, 2001, 13, L337-L342.	1.8	737
2	Possible Fulde-Ferrell-Larkin-Ovchinnikov Superconducting State in CeCoIn ₅ . Physical Review Letters, 2003, 91, 187004.	7.8	543
3	A new heavy-fermion superconductor CeIrIn ₅ : A relative of the cuprates?. Europhysics Letters, 2001, 53, 354-359.	2.0	476
4	Hidden magnetism and quantum criticality in the heavy fermion superconductor CeRhIn ₅ . Nature, 2006, 440, 65-68.	27.8	412
5	Unconventional Superconductivity in CeIrIn ₅ and CeCoIn ₅ : Specific Heat and Thermal Conductivity Studies. Physical Review Letters, 2001, 86, 5152-5155.	7.8	399
6	Coupled Superconducting and Magnetic Order in CeCoIn ₅ . Science, 2008, 321, 1652-1654.	12.6	299
7	Superconductivity in heavy-fermion CeRh ₂ Si ₂ . Physical Review B, 1996, 53, 8241-8244.	3.2	279
8	Avoided Antiferromagnetic Order and Quantum Critical Point in CeCoIn ₅ . Physical Review Letters, 2003, 91, 257001.	7.8	275
9	First-Order Superconducting Phase Transition in CeCoIn ₅ . Physical Review Letters, 2002, 89, 137002.	7.8	231
10	Coexistence of magnetism and superconductivity in CeRh _{1-x} Ir _x In ₅ . Physical Review B, 2001, 64, .	3.2	159
11	The first order phase transition and superconductivity in BaNi ₂ As ₂ single crystals. Journal of Physics Condensed Matter, 2008, 20, 342203.	1.8	134
12	Bose glass and Mott glass of quasiparticles in a doped quantum magnet. Nature, 2012, 489, 379-384.	27.8	111
13	Superconducting Vortices in CeCoIn ₅ : Toward the Pauli-Limiting Field. Science, 2008, 319, 177-180.	12.6	104
14	Anisotropy of thermal conductivity and possible signature of the Fulde-Ferrell-Larkin-Ovchinnikov state in CeCoIn ₅ . Physical Review B, 2004, 70, .	3.2	95
15	Isotropic quantum scattering and unconventional superconductivity. Nature, 2008, 456, 366-368.	27.8	94
16	Evidence for a Magnetically Driven Superconducting Q Phase of $CeCoIn_5$. Physical Review Letters, 2010, 104, 127001.	7.8	90
17	Magnetic microstructure and magnetic properties of uniaxial itinerant ferromagnet Fe ₃ GeTe ₂ . Journal of Applied Physics, 2016, 120, .	2.5	87
18	Field-tuned quantum critical point in CeCoIn ₅ near the superconducting upper critical field. Physical Review B, 2005, 71, .	3.2	72

#	ARTICLE	IF	CITATIONS
19	Low-Temperature Anomaly in Thermal Conductivity of $\text{Bi}_2\text{Sr}_2\text{Ca}(\text{Cu}_{1-x}\text{Ni}_x)\text{O}_8$: Second Superconducting Phase?. <i>Physical Review Letters</i> , 1998, 80, 1968-1971.	7.8	69
20	Superconductivity in CeCoIn_5 : Veil over an Ordered State or Novel Quantum Critical Point?. <i>Physical Review Letters</i> , 2005, 94, 047001.	7.8	65
21	Pressure study of quantum criticality in CeCoIn_5 . <i>Physical Review B</i> , 2006, 73, .	3.2	62
22	Ni_2X_2 (X=pnictide, chalcogenide, or B) based superconductors. <i>Physica C: Superconductivity and Its Applications</i> , 2009, 469, 396-403.	1.2	56
23	Low-Temperature Magnetothermal Transport Investigation of a Ni-Based Superconductor BaNiAs : Evidence for Fully Gapped Superconductivity. <i>Physical Review Letters</i> , 2009, 102, 147004.	7.8	54
24	Controllable chirality-induced geometrical Hall effect in a frustrated highly correlated metal. <i>Nature Communications</i> , 2012, 3, 1067.	12.8	51
25	Unusual Kondo behavior in the indium-rich heavy-fermion antiferromagnet $\text{Ce}_3\text{Pt}_4\text{In}_{13}$. <i>Physical Review B</i> , 2001, 65, .	3.2	49
26	Pressure-induced superconducting state and effective mass enhancement near the antiferromagnetic quantum critical point of CePt_2As . <i>Physical Review B</i> , 2010, 81, .	3.2	48
27	Switching of magnetic domains reveals spatially inhomogeneous superconductivity. <i>Nature Physics</i> , 2014, 10, 126-129.	16.7	46
28	Local Ferromagnetic Resonance Imaging with Magnetic Resonance Force Microscopy. <i>Physical Review Letters</i> , 2008, 100, 197601.	7.8	44
29	Thermodynamic and transport investigation of CeCoIn_5 . <i>Physical Review B</i> , 2006, 73, .	3.2	42
30	$\text{NaV}_4\text{O}_{13}$: A Quasi-1D Metallic Antiferromagnet with Half-Metallic Chains. <i>Physical Review Letters</i> , 2007, 99, 196601.	7.8	41
31	Electronic inhomogeneity in a Kondo lattice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 6857-6861.	7.1	39
32	Intertwined Orders in Heavy-Fermion Superconductor CeCoIn_5 . <i>Physical Review X</i> , 2016, 6, .	8.9	35
33	Anisotropic Effect of Cd and Hg Doping on the Pauli Limited Superconductor CeCoIn_5 . <i>Physical Review Letters</i> , 2008, 101, 037001.	7.8	34
34	Non-Fermi-liquid behavior in CeIrIn_5 near a metamagnetic transition. <i>Physical Review B</i> , 2004, 70, .	3.2	31
35	Design of a variable temperature scanning force microscope. <i>Review of Scientific Instruments</i> , 2009, 80, 083704.	1.3	31
36	c-axis magnetotransport in CeCoIn_5 . <i>Physical Review B</i> , 2005, 72, .	3.2	28

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37	Observations of Pauli paramagnetic effects on the flux line lattice in CeCoIn ₅ . New Journal of Physics, 2010, 12, 023026.	2.9	28
38	Antiferromagnetic quantum critical point in. Physica B: Condensed Matter, 2006, 378-380, 142-143.	2.7	26
39	Quantum critical scaling at a Bose-glass/superfluid transition: Theory and experiment for a model quantum magnet. Physical Review B, 2012, 86, .	3.2	26
40	Rapid suppression of superconductivity in. Physica B: Condensed Matter, 2005, 359-361, 35-37.	2.7	23
41	Anomalous effect of doping on the superconducting state of CeCoIn ₅ in high magnetic fields. Physical Review B, 2010, 82, .	3.2	23
42	Magnetic ordering in the frustrated chain candidate $J_1 < J_2 < J_3 < J_4 < J_5 < J_6 < J_7 < J_8 < J_9 < J_{10} < J_{11} < J_{12} < J_{13} < J_{14} < J_{15} < J_{16} < J_{17} < J_{18} < J_{19} < J_{20} < J_{21} < J_{22} < J_{23} < J_{24} < J_{25} < J_{26} < J_{27} < J_{28} < J_{29} < J_{30} < J_{31} < J_{32} < J_{33} < J_{34} < J_{35} < J_{36} < J_{37} < J_{38} < J_{39} < J_{40} < J_{41} < J_{42} < J_{43} < J_{44} < J_{45} < J_{46} < J_{47} < J_{48} < J_{49} < J_{50} < J_{51} < J_{52} < J_{53} < J_{54} < J_{55} < J_{56} < J_{57} < J_{58} < J_{59} < J_{60} < J_{61} < J_{62} < J_{63} < J_{64} < J_{65} < J_{66} < J_{67} < J_{68} < J_{69} < J_{70} < J_{71} < J_{72} < J_{73} < J_{74} < J_{75} < J_{76} < J_{77} < J_{78} < J_{79} < J_{80} < J_{81} < J_{82} < J_{83} < J_{84} < J_{85} < J_{86} < J_{87} < J_{88} < J_{89} < J_{90} < J_{91} < J_{92} < J_{93} < J_{94} < J_{95} < J_{96} < J_{97} < J_{98} < J_{99} < J_{100}$	3.2	22
43	Direct measurement of the magnetic penetration depth by magnetic force microscopy. Superconductor Science and Technology, 2012, 25, 112001. Large magnetic penetration depth and thermal fluctuations in a superconducting Ca	3.5	19

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55	Spin liquid ground state in the frustrated J_1 - J_2 chain system BaTb_2O_7 . Physical Review B, 2015, 92, .	3.2	12
56	Interplay of magnetism, structure and superconductivity in heavy-fermion systems CeMn_5 and PuMgAs_5 . Journal of Alloys and Compounds, 2006, 408-412, 16-20.	5.5	10
57	Interplay of the Spin Density Wave and a Possible Fulde-Ferrell-Larkin-Ovchinnikov State in CeCoIn_5 in Rotating Magnetic Field. Physical Review Letters, 2020, 124, 217001.	7.8	10
58	Low Temperature Magnetic Resonance Force Microscope: Design and Performance. AIP Conference Proceedings, 2006, , .	0.4	9
59	Low-temperature thermal conductivity of BaFe_2As_2 : A parent compound of iron arsenide superconductors. Physical Review B, 2009, 79, .	3.2	9
60	Magnetic domain tuning and the emergence of bubble domains in the bilayer manganite $\text{La}_{1-x}\text{Ca}_x\text{MnO}_2$. Physical Review B, 2015, 92, .	3.2	9
61	Cryogenic microscopy of antiferromagnetic short-range order in YbMn_2Sn . Physical Review B, 2016, 93, .	3.2	8
62	Measurement of the magnetic penetration depth of a superconducting MgB_2 thin film with a large intraband diffusivity. Physical Review B, 2012, 86, .	3.2	8
63	Partially disordered antiferromagnetism and multiferroic behavior in a frustrated Ising system $\text{CoCl}_2\text{SCNH}_2$. Physical Review B, 2016, 93, .	3.2	8
64	Magnetism and unconventional superconductivity in isostructural cerium and plutonium compounds. Journal of Magnetism and Magnetic Materials, 2007, 310, 532-535.	2.3	7
65	Fully gapped superconductivity in Ni-pnictide superconductors BaNi_2As_2 and SrNi_2P_2 . Journal of Physics: Conference Series, 2011, 273, 012097.	0.4	7
66	Complex mixed state of the Pauli-limited superconductor CeCoIn_5 . Physical Review B, 2012, 85, .	3.2	7
67	Magnetic resonance force microscopy studies in a thin permalloy film. Journal of Magnetism and Magnetic Materials, 2007, 310, e941-e943.	2.3	6
68	Spatial characterization of the magnetic field profile of a probe tip used in magnetic resonance force microscopy. Applied Physics Letters, 2008, 92, 214104.	3.3	6
69	Thermal and magnetic properties of the low-temperature antiferromagnet Ce_4Mg_6 . Physical Review B, 2010, 82, .	3.2	6
70	Local characterization of a heavy-fermion superconductor via sub-Kelvin magnetic force microscopy. Applied Physics Letters, 2020, 117, .	3.3	6
71	Effect of localized magnetic field on the uniform ferromagnetic resonance mode in a thin film. Applied Physics Letters, 2009, 94, .	3.3	5
72	Strong magnetic field dependence of critical current densities and vortex activation energies in an anisotropic clean MgB_2 thin film. Solid State Communications, 2015, 204, 56-60.	1.9	5

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73	Competing ground states in heavy-fermion materials. Journal of Alloys and Compounds, 2000, 303-304, 239-244.	5.5	4
74	Pulsed laser deposition of CeCoIn5 thin films. Physica C: Superconductivity and Its Applications, 2010, 470, S568-S569.	1.2	4
75	Weak coupling magnetism in $Ce_{4-x}Pt_{12-x}Sn_{25-x}$: a small exchange limit in the Doniach phase diagram. Journal of Physics Condensed Matter, 2010, 22, 065601.	1.8	4
76	Switching dynamics of the spin density wave in superconducting CeCoIn5. Physical Review B, 2017, 95, .	3.2	4
77	Resonances in the Field-Angle-Resolved Thermal Conductivity of $CeCoIn_5$. Physical Review Letters, 2017, 118, 197001.	7.8	4
78	Fingerprinting triangular-lattice antiferromagnet by excitation gaps. Physical Review B, 2021, 103, .	3.2	4
79	Normal state properties at a field-tuned quantum-critical point in the heavy-fermion superconductor. Physica B: Condensed Matter, 2008, 403, 943-945.	2.7	3
80	Physical properties of the uranium ternary compounds $U_3Bi_4M_3$ (M=Ni,Rh). Physical Review B, 2008, 77, .	3.2	3
81	Possible Fulde-Ferrel-Larkin-Ovchinnikov Inhomogeneous Superconducting State in CeCoIn5: Cd- and Hg-doping Studies. Journal of Superconductivity and Novel Magnetism, 2009, 22, 291-293.	1.8	3
82	Direct observation of magnetic phase coexistence and magnetization reversal in a $Gd_{0.67}Ca_{0.33}MnO_3$ thin film. Applied Physics Letters, 2012, 100, .	3.3	3
83	Low-temperature specific heat of. Journal of Magnetism and Magnetic Materials, 2007, 310, 325-327.	2.3	2
84	Metamagnetism in CeIrIn5: Magnetoresistance and dHvA investigation. Physica B: Condensed Matter, 2008, 403, 797-799.	2.7	2
85	High field phase diagram of CeCoIn5: A magnetization study. Physica C: Superconductivity and Its Applications, 2007, 460-462, 674-675.	1.2	1
86	Magnetic excitations of the 2-D Sm spin layers in. Journal of Magnetism and Magnetic Materials, 2007, 310, e392-e393.	2.3	1
87	Low-temperature thermal conductivity of the noncentrosymmetric superconductor LaRhSi3. Journal of Physics: Conference Series, 2011, 273, 012077.	0.4	1
88	Thermal and magnetic properties of a low-temperature antiferromagnet $Ce_{4-x}Pt_{12-x}Sn_{25-x}$. Journal of Physics: Conference Series, 2011, 273, 012045.	0.4	1
89	Short-range magnetic correlations in the highly correlated electron compound $CeCu_4Ga$. Physical Review B, 2014, 90, .	3.2	1
90	Superconducting properties in heavily overdoped $Ba(Fe_{0.86}Co_{0.14})_2As_2$ single crystals. Solid State Communications, 2015, 201, 20-24.	1.9	1

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91	Metamagnetism and Non-Fermi Liquid Behavior in CeIn ₅ . AIP Conference Proceedings, 2006, , .	0.4	0
92	Non-Fermi-Liquid Behavior in CeCoIn ₅ Near the Superconducting Critical Field. AIP Conference Proceedings, 2006, , .	0.4	0
93	Possible Fulde-Ferrell-Larkin-Ovchinnikov inhomogeneous superconducting state in CeCoIn ₅ . Pramana - Journal of Physics, 2006, 66, 227-237.	1.8	0
94	Localized Ferromagnetic Resonance Force Microscopy of a Continuous Permalloy-Cobalt Film. Materials Research Society Symposia Proceedings, 2007, 1025, 1.	0.1	0
95	Ferromagnetic resonance force microscopy studies of a continuous permalloy-cobalt film. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1758-1761.	1.8	0
96	Effects of Cd-doping on high-field low-temperature superconducting state in. Physica B: Condensed Matter, 2008, 403, 879-880.	2.7	0
97	Localized ferromagnetic resonance force microscopy in Permalloy-cobalt films. Journal of Applied Physics, 2009, 106, 046103.	2.5	0
98	Front Cover (Phys. Status Solidi B 3/2010). Physica Status Solidi (B): Basic Research, 2010, 247, .	1.5	0
99	Ferromagnetic bubble clusters in Y _{0.67} Ca _{0.33} MnO ₃ thin films. Applied Physics Letters, 2013, 102, 192409.	3.3	0
100	Multiple phases with intertwined magnetic and superconducting orders in Nd-doped CeCoIn_5 . Physical Review B, 2018, 97, .	3.2	0
101	Intertwined orders in heavy-fermion superconductor CeCoIn_5 . International Journal of Modern Physics B, 2018, 32, 1840019.	2.0	0
102	Interplay Of Magnetism And Superconductivity In CeCoIn ₅ . NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 127-138.	0.3	0