Roman Movshovich

List of Publications by Year
in descending order

102 papers	5,941 citations	126907 33 h-index	69250 77 g-index
103 all docs	103 docs citations	103 times ranked	3289 citing authors

#	Article	IF	Citations
1	Fingerprinting triangular-lattice antiferromagnet by excitation gaps. Physical Review B, 2021, 103, .	3.2	4
2	Local characterization of a heavy-fermion superconductor via sub-Kelvin magnetic force microscopy. Applied Physics Letters, 2020, 117, .	3.3	6
3	Interplay of the Spin Density Wave and a Possible Fulde-Ferrell-Larkin-Ovchinnikov State in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CeCoIn</mml:mi></mml:mrow><mml:mrow><mml:mn>5</mml:mn></mml:mr in Rotating Magnetic Field. Physical Review Letters, 2020, 124, 217001.	7.8	10
4	Multiple phases with intertwined magnetic and superconducting orders in Nd-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CeCoIn</mml:mi><mml:mn>5</mml:mn></mml:msub></ Physical Review B, 2018, 97, .	3.2	0
5	Intertwined orders in heavy-fermion superconductor CeCoIn₅. International Journal of Modern Physics B, 2018, 32, 1840019.	2.0	0
6	Switching dynamics of the spin density wave in superconducting CeCoIn5. Physical Review B, 2017, 95, .	3.2	4
7	Resonances in the Field-Angle-Resolved Thermal Conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CeCoIn</mml:mi></mml:mrow><mml:mrow><mml:mn>5</mml:mn></mml:mr Physical Review Letters, 2017, 118, 197001.	7.8	4
8	Intertwined Orders in Heavy-Fermion Superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CeCoIn</mml:mi></mml:mrow><mml:mrow><mml:mn>5</mml:mn> Physical Review X, 2016, 6, .	8.9	35
9	Magnetic microstructure and magnetic properties of uniaxial itinerant ferromagnet Fe3GeTe2. Journal of Applied Physics, 2016, 120, .	2.5	87
10	Partially disordered antiferromagnetism and multiferroic behavior in a frustrated Ising system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CoCl</mml:mi><mml:mn>2</mml:mn></mml:msub><mm mathvariant="normal">SC</mml:mi><mml:mo>(</mml:mo><mml:msub><mml:mi>NH</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mo /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2016, 93, .	3.2	8
11	Magnetic domain tuning and the emergence of bubble domains in the bilayer manganite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mtext>La</mml:mtext></mml:mrow><mml:mrow Physical Review B, 2015, 92, .	3.2	9
12	Spin-liquid ground state in the frustrated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>J</mml:mi><mml:mn>1</mml:mn></mml:msub><mml:ms chain system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaTb</mml:mi><mml:mn>2</mml:mn></mml:mn></mml mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:ma. Physical Review B, 2015, 92, .	3.2	12
13	Strong magnetic field dependence of critical current densities and vortex activation energies in an anisotropic clean MgB2 thin film. Solid State Communications, 2015, 204, 56-60.	1.9	5
14	Superconducting properties in heavily overdoped Ba(Fe0.86Co0.14)2As2 single crystals. Solid State Communications, 2015, 201, 20-24.	1.9	1
15	Magnetic ordering in the frustrated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>J</mml:mi><mml:mn>1</mml:mn></mml:msub><mml: chain candidate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaNd</mml:mi><mml:mn>2</mml:mn></ mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2014, 90, .	3.2	22
16	Short-range magnetic correlations in the highly correlated electron compoundCeCu4Ga. Physical Review B, 2014, 90, .	3.2	1
17	Switching of magnetic domains reveals spatially inhomogeneous superconductivity. Nature Physics, 2014, 10, 126-129.	16.7	46
18	High purity specimens of URu₂Si₂produced by a molten metal flux technique. Philosophical Magazine, 2014, 94, 3663-3671.	1.6	17

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19	Ferromagnetic bubble clusters in Y0.67Ca0.33MnO3 thin films. Applied Physics Letters, 2013, 102, 192409.	3.3	0
20	Direct measurement of the magnetic penetration depth by magnetic force microscopy. Superconductor Science and Technology, 2012, 25, 112001.	3.5	19
21	Direct observation of magnetic phase coexistence and magnetization reversal in a Gd0.67Ca0.33MnO3 thin film. Applied Physics Letters, 2012, 100, .	3.3	3
22	Complex mixed state of the Pauli-limited superconductor CeCoIn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>5</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 85, .	3.2	7
23	Large magnetic penetration depth and thermal fluctuations in a superconducting Ca<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Na<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Fe<mml:math xmlns:mml	3.2	17
24	Controllable chirality-induced geometrical Hall effect in a frustrated highly correlated metal. Nature Communications, 2012, 3, 1067.	12.8	51
25	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
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37	Fieldâ€induced quantum critical point in the pressureâ€induced superconductor CeRhIn₅. Physica Status Solidi (B): Basic Research, 2010, 247, 553-556.	1.5	14
38	Front Cover (Phys. Status Solidi B 3/2010). Physica Status Solidi (B): Basic Research, 2010, 247, .	1.5	0
39	Thermal and magnetic properties of the low-temperature antiferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Ce</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub> Physical Review B, 2010, 82, .	3.2	6
40	Pressure-induced superconducting state and effective mass enhancement near the antiferromagnetic quantum critical point of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CePt</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:ms Physical Review B, 2010, 81, .	3.2	48
41	Phase Diagram of a Pressure-Driven Superconducting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>Phase of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>CeCoIn</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2010, 104, 127001.	7.8	90
42	Anomalous effect of doping on the superconducting state ofCeCoIn5in high magnetic fields. Physical Review B, 2010, 82, .	3.2	23
43	Weak coupling magnetism in Ce₄Pt₁₂Sn₂₅: a small exchange limit in the Doniach phase diagram. Journal of Physics Condensed Matter, 2010, 22, 065601.	1.8	4
44	Observations of Pauli paramagnetic effects on the flux line lattice in CeCoIn₅. New Journal of Physics, 2010, 12, 023026.	2.9	28
45	Unusual metamagnetism inCeIrIn5. Physical Review B, 2009, 80, .	3.2	14
46	Low-temperature thermal conductivity ofBaFe2As2: A parent compound of iron arsenide superconductors. Physical Review B, 2009, 79, .	3.2	9
47	Detection of localized ferromagnetic resonance in a continuous thin film via magnetic resonance force microscopy. Physical Review B, 2009, 79, .	3.2	13
48	Localized ferromagnetic resonance force microscopy in Permalloy-cobalt films. Journal of Applied Physics, 2009, 106, 046103.	2.5	0
49	Direct measurements of the penetration depth in a superconducting film using magnetic force microscopy. Applied Physics Letters, 2009, 95, .	3.3	17
50	Low-Temperature Magnetothermal Transport Investigation of a Ni-Based Superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>BaNi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>As</mml:mi><mml:mi><mml:r Evidence for Fully Gapped Superconductivity. Physical Review Letters, 2009, 102, 147004.	7.8	54
51	Design of a variable temperature scanning force microscope. Review of Scientific Instruments, 2009, 80, 083704.	1.3	31
52	Possible Fuldeâ€“Ferrelâ€“Larkinâ€“Ovchinnikov Inhomogeneous Superconducting State in CeCoIn5: Cd- and Hg-doping Studies. Journal of Superconductivity and Novel Magnetism, 2009, 22, 291-293.	1.8	3
53	Ni2X2 (X=pnictide, chalcogenide, or B) based superconductors. Physica C: Superconductivity and Its Applications, 2009, 469, 396-403.	1.2	56
54	Effect of localized magnetic field on the uniform ferromagnetic resonance mode in a thin film. Applied Physics Letters, 2009, 94, .	3.3	5

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55	Ferromagnetic resonance force microscopy studies of a continuous permalloyâ€“cobalt film. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1758-1761.	1.8	0
56	Metamagnetism in CeIrIn5: Magnetoresistance and dHvA investigation. Physica B: Condensed Matter, 2008, 403, 797-799.	2.7	2
57	Effects of Cd-doping on high-field low-temperature superconducting state in. Physica B: Condensed Matter, 2008, 403, 879-880.	2.7	0
58	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
59	Isotropic quantum scattering and unconventional superconductivity. Nature, 2008, 456, 366-368.	27.8	94
60	Local Ferromagnetic Resonance Imaging with Magnetic Resonance Force Microscopy. Physical Review Letters, 2008, 100, 197601.	7.8	44
61	Coupled Superconducting and Magnetic Order in CeCoIn ₅. Science, 2008, 321, 1652-1654.	12.6	299
62	The first order phase transition and superconductivity in BaNi₂As₂single crystals. Journal of Physics Condensed Matter, 2008, 20, 342203.	1.8	134
63	Superconducting Vortices in CeCoIn ₅ : Toward the Pauli-Limiting Field. Science, 2008, 319, 177-180.	12.6	104
64	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
65	Physical properties of the uranium ternary compoundsU3Bi4M3(M=Ni,Rh). Physical Review B, 2008, 77, .	3.2	3
66	Anisotropic Effect of Cd and Hg Doping on the Pauli Limited SuperconductorCeCoIn5. Physical Review Letters, 2008, 101, 037001.	7.8	34
67	Interplay Of Magnetism And Superconductivity In Cecoin5. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 127-138.	0.3	0
68	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>NaV</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:math>: A Quasi-1D Metallic Antiferromagnet with Half-Metallic Chains. Physical Review Letters, 2007, 99, 196601.	7.8	41
69	Temperature-dependent magnetic resonance force microscopy studies of a thin Permalloy film. Journal of Applied Physics, 2007, 101, 074905.	2.5	13
70	Ferromagnetic resonance force microscopy on a thin permalloy film. Applied Physics Letters, 2007, 90, 234105.	3.3	16
71	High field phase diagram of CeCoIn5: A magnetization study. Physica C: Superconductivity and Its Applications, 2007, 460-462, 674-675.	1.2	1
72	Low-temperature specific heat of. Journal of Magnetism and Magnetic Materials, 2007, 310, 325-327.	2.3	2

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73	Magnetism and unconventional superconductivity in isostructural cerium and plutonium compounds. Journal of Magnetism and Magnetic Materials, 2007, 310, 532-535.	2.3	7
74	Magnetic excitations of the 2-D Sm spin layers in. Journal of Magnetism and Magnetic Materials, 2007, 310, e392-e393.	2.3	1
75	Magnetic resonance force microscopy studies in a thin permalloy film. Journal of Magnetism and Magnetic Materials, 2007, 310, e941-e943.	2.3	6
76	Localized Ferromagnetic Resonance Force Microscopy of a Continuous Permalloy-Cobalt Film. Materials Research Society Symposia Proceedings, 2007, 1025, 1.	0.1	0
77	Interplay of magnetism, structure and superconductivity in heavy-fermion systems CeMIn5 and PuMGa5. Journal of Alloys and Compounds, 2006, 408-412, 16-20.	5.5	10
78	Metamagnetism and Non-Fermi Liquid Behavior in CeIrIn5. AIP Conference Proceedings, 2006, , .	0.4	0
79	Non-Fermi-Liquid Behavior in CeCoIn5 Near the Superconducting Critical Field. AIP Conference Proceedings, 2006, , .	0.4	0
80	Low Temperature Magnetic Resonance Force Microscope: Design and Performance. AIP Conference Proceedings, 2006, , .	0.4	9
81	Hidden magnetism and quantum criticality in the heavy fermion superconductor CeRhIn5. Nature, 2006, 440, 65-68.	27.8	412
82	Antiferromagnetic quantum critical point in. Physica B: Condensed Matter, 2006, 378-380, 142-143.	2.7	26
83	Possible Fulde-Ferrell-Larkin-Ovchinnikov inhomogeneous superconducting state in CeCoIn5. Pramana - Journal of Physics, 2006, 66, 227-237.	1.8	0
84	Pressure study of quantum criticality inCeCoIn5. Physical Review B, 2006, 73, .	3.2	62
85	Thermodynamic and transport investigation ofCeCoIn5â^'xSnx. Physical Review B, 2006, 73, .	3.2	42
86	Rapid suppression of superconductivity in. Physica B: Condensed Matter, 2005, 359-361, 35-37.	2.7	23
87	Field-tuned quantum critical point inCeCoIn5near the superconducting upper critical field. Physical Review B, 2005, 71, .	3.2	72
88	c-axis magnetotransport inCeCoIn5. Physical Review B, 2005, 72, .	3.2	28
89	Superconductivity inCeCoIn5â^'xSnx: Veil over an Ordered State or Novel Quantum Critical Point?. Physical Review Letters, 2005, 94, 047001.	7.8	65
90	Non-Fermi-liquid behavior in CeIrIn5 near a metamagnetic transition. Physical Review B, 2004, 70, .	3.2	31

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91	Anisotropy of thermal conductivity and possible signature of the Fulde-Ferrell-Larkin-Ovchinnikov state inCeCoIn5. Physical Review B, 2004, 70, .	3.2	95
92	Possible Fulde-Ferrell-Larkin-Ovchinnikov Superconducting State inCeCoIn5. Physical Review Letters, 2003, 91, 187004.	7.8	543
93	Avoided Antiferromagnetic Order and Quantum Critical Point inCeCoIn5. Physical Review Letters, 2003, 91, 257001.	7.8	275
94	First-Order Superconducting Phase Transition inCeCoIn5. Physical Review Letters, 2002, 89, 137002.	7.8	231
95	Unconventional Superconductivity inCeIrIn5andCeCoIn5: Specific Heat and Thermal Conductivity Studies. Physical Review Letters, 2001, 86, 5152-5155.	7.8	399
96	Coexistence of magnetism and superconductivity inCeRh1â^'xIrxIn5. Physical Review B, 2001, 64, .	3.2	159
97	Heavy-fermion superconductivity in CeCoIn5at 2.3 K. Journal of Physics Condensed Matter, 2001, 13, L337-L342.	1.8	737
98	A new heavy-fermion superconductor CeIrIn 5 : A relative of the cuprates?. Europhysics Letters, 2001, 53, 354-359.	2.0	476
99	Unusual Kondo behavior in the indium-rich heavy-fermion antiferromagnetCe3Pt4In13. Physical Review B, 2001, 65, .	3.2	49
100	Competing ground states in heavy-fermion materials. Journal of Alloys and Compounds, 2000, 303-304, 239-244.	5.5	4
101	Low-Temperature Anomaly in Thermal Conductivity ofBi2Sr2Ca(Cu1â^'xNix)2O8: Second Superconducting Phase?. Physical Review Letters, 1998, 80, 1968-1971.	7.8	69
102	Superconductivity in heavy-fermionCeRh2Si2. Physical Review B, 1996, 53, 8241-8244.	3.2	279