

# Nicholas Curro

## List of Publications by Year in descending order

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127  
papers

4,504  
citations

168829

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120465

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132  
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132  
docs citations

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times ranked

4247  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nematicity and Glassy Behavior Probed by Nuclear Magnetic Resonance in Iron-Based Superconductors. <i>Frontiers in Physics</i> , 2022, 10, .	1.0	0
2	Second order Zeeman interaction and ferroquadrupolar order in TmVO <sub>4</sub> . <i>Npj Quantum Materials</i> , 2022, 7, .	1.8	7
3	Novel color center platforms enabling fundamental scientific discovery. <i>Informa-Materi-ly</i> , 2021, 3, 869-890.	8.5	29
4	Hyperfine couplings as a probe of orbital anisotropy in heavy-fermion materials. <i>Physical Review B</i> , 2021, 104, .	1.1	2
5	Inhomogeneous Knight shift in vortex cores of superconducting FeSe. <i>Physical Review B</i> , 2021, 104, .	1.1	7
6	Inverse Laplace transformation analysis of stretched exponential relaxation. <i>Journal of Magnetic Resonance</i> , 2021, 331, 107050.	1.2	9
7	Optically detected NMR in a diamond-anvil cell for geochemistry. <i>Advances in Inorganic Chemistry</i> , 2021, 78, 269-287.	0.4	0
8	ac Sensing Using Nitrogen-Vacancy Centers in a Diamond Anvil Cell up to 6 GPa. <i>Physical Review Applied</i> , 2021, 16, .	1.5	4
9	Anisotropic nematic fluctuations above the ferroquadrupolar transition in TmVO <sub>4</sub> . <i>Physical Review B</i> , 2021, 104, .	1.1	7
10	The promise of optical NMR spectroscopy for experimental aqueous geochemistry. <i>Numerische Mathematik</i> , 2020, 320, 533-545.	0.7	1
11	Impact of disorder on dynamics and ordering in the honeycomb-lattice iridate $\text{NaIr}_2\text{O}_6$ . <i>Physical Review B</i> , 2020, 101, .		
12	Two-way magnetic resonance tuning and enhanced subtraction imaging for non-invasive and quantitative biological imaging. <i>Nature Nanotechnology</i> , 2020, 15, 482-490.	15.6	78
13	Coherence temperature in the diluted periodic Anderson model. <i>Physical Review B</i> , 2019, 99, .	1.1	8
14	Site-specific Knight shift measurements of the dilute Kondo lattice system $\text{Ce}_{1-x}\text{La}_x\text{CoIn}_5$ . <i>Physical Review B</i> , 2019, 99, .	1.1	2
15	Measurements of the NMR Knight shift tensor and nonlinear magnetization in URu <sub>2</sub> Si <sub>2</sub> . <i>Physical Review B</i> , 2018, 97, .	1.1	5
16	Uniaxial strain control of spin-polarization in multicomponent nematic order of BaFe <sub>2</sub> As <sub>2</sub> . <i>Nature Communications</i> , 2018, 9, 1058.	5.8	41
17	NMR investigation of antiferromagnetism and coherence in URu <sub>2</sub> Si <sub>2</sub> $\alpha$ Px. <i>Physical Review B</i> , 2017, 95, .	1.1	6
18	Impurities near an antiferromagnetic-singlet quantum critical point. <i>Physical Review B</i> , 2017, 95, .	1.1	7

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19	Local nematic susceptibility in stressed $\text{BaFe}_2\text{As}_2$ from NMR electric field gradient measurements. <i>Physical Review B</i> , 2017, 96, .		
20	Optically detected magnetic resonance of nitrogen vacancies in a diamond anvil cell using designer diamond anvils. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	23
21	Nuclear magnetic resonance probe head design for precision strain control. <i>Review of Scientific Instruments</i> , 2017, 88, 103902.	0.6	8
22	First-order reversal curve of the magnetostructural phase transition in FeTe. <i>Physical Review B</i> , 2017, 95, .	1.1	7
23	NMR study of nematic spin fluctuations in a detwinned single crystal of underdoped $\text{BaFe}_2\text{As}_2$ . <i>Physical Review B</i> , 2016, 94, .		
24	Nuclear magnetic resonance Knight shifts in the presence of strong spin-orbit and crystal-field potentials. <i>New Journal of Physics</i> , 2016, 18, 073041.	1.2	14
25	Nuclear magnetic resonance in Kondo lattice systems. <i>Reports on Progress in Physics</i> , 2016, 79, 064501.	8.1	10
26	Impurity-induced antiferromagnetic domains in the periodic Anderson model. <i>Physical Review B</i> , 2016, 94, .	1.1	9
27	NMR Evidence for Inhomogeneous Nematic Fluctuations in $\text{BaFe}_2\text{As}_2$		

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37	Universal Knight shift anomaly in the periodic Anderson model. Physical Review B, 2014, 90, .	1.1	22
38	Coexistence of Cluster Spin Glass and Superconductivity in $\text{BaFe}_2\text{As}_2$ . Physical Review Letters, 2013, 111, 207201.	2.9	60
39	NMR evidence for spin fluctuations in the bilayer nickelate $\text{LaNiO}_2$ . Physical Review Letters, 2013, 111, 207201.	1.1	9
40	Angular dependent $^{75}\text{As}$ NMR study of the electric field gradient in $\text{CaFe}_2\text{As}_2$ . Superconductor Science and Technology, 2013, 26, 025012.	1.8	1
41	Nuclear magnetic resonance as a probe of electronic states of $\text{Bi}_2\text{Se}_3$ . Physical Review B, 2013, 87, .	1.1	28
42	NMR investigation of the Knight shift anomaly in $\text{CeIrIn}_5$ at high magnetic fields. Physical Review B, 2013, 88, .	1.1	5
43	Nuclear magnetic resonance studies of pseudospin fluctuations in $\text{URuSi}_2$ . Physical Review B, 2012, 85, .	1.1	15
44	Evidence for filamentary superconductivity nucleated at antiphase domain walls in antiferromagnetic $\text{CaFeAs}_2$ . Physical Review B, 2012, 85, .	1.1	44
45	Long range order and two-fluid behavior in heavy electron materials. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3067-73.	3.3	48
46	Probing Onset of Coherence in $\text{CeIrIn}_5$ . Journal of Physics: Conference Series, 2012, 344, 012020.	0.3	4
47	Local magnetic inhomogeneities observed via $^{75}\text{As}$ NMR in $\text{Ba}(\text{Fe}_{1-x}\text{Ni}_x)_2\text{As}_2$ with $c$ -axis. Journal of Physics: Conference Series, 2012, 344, 012022.	0.3	1
48	Nuclear Quadrupole Resonance in the Heavy Fermion Antiferromagnet $\text{CePt}_2\text{In}_7$ . Journal of Physics: Conference Series, 2012, 344, 012027.	0.3	1
49	Investigating the Structure of $\text{Ce}_{1-x}\text{La}_x\text{CoIn}_5$ Using NQR. Journal of Superconductivity and Novel Magnetism, 2012, 25, 2141-2144.	0.8	1
50	Critical spin dynamics in the antiferromagnet $\text{LaNi}_4\text{O}_8$ . Physical Review B, 2011, 83, .	1.1	31
51	A predictive standard model for heavy electron systems. Journal of Physics: Conference Series, 2011, 273, 012066.	0.3	7
52	Synthesis and Thermal Stability Studies of $\text{CaFe}_4\text{As}_3$ . European Journal of Inorganic Chemistry, 2011, 2011, 3920-3925.	1.0	9
53	NMR studies of pseudogap and electronic inhomogeneity in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ . Physical Review B, 2011, 84, .	1.1	19
54	Kondo liquid emergence and relocalization in the approach to antiferromagnetic ordering in $\text{CePtIn}_7$ . Physical Review B, 2011, 83, .	1.1	17

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55	Hidden-order pseudogap in URu <sub>2</sub> Si <sub>2</sub> . Physical Review B, 2011, 84, .	1.1	24
56	Charge order and low frequency spin dynamics in lanthanum cuprates revealed by Nuclear Magnetic Resonance. European Physical Journal: Special Topics, 2010, 188, 89-101.	1.2	14
57	Hyperfine Fields and Magnetic Structure in the B Phase of CeCoIn <sub>5</sub> . Journal of Low Temperature Physics, 2010, 158, 635-646.	0.6	11
58	NMR studies of field induced magnetism in CeCoIn <sub>5</sub> . Physica C: Superconductivity and Its Applications, 2010, 470, S521-S524.	0.6	1
59	Commensurate antiferromagnetism in CePt <sub>2</sub> In <sub>7</sub> , a nearly two-dimensional heavy fermion system. Physical Review B, 2010, 81.	1.1	25
60	relaxation rates in an itinerant antiferromagnet	1.1	5
61	Antiferromagnetic patches and hidden order in URu <sub>2</sub> Si <sub>2</sub> by impurity doping. Physical Review B, 2010, 81, .	1.1	19
62	Bulk Magnetic Order in a Two-Dimensional		

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73	Electronic properties of $\text{LaO}_{1-x}\text{F}_x\text{FeAs}$ in the normal state probed by NMR/NQR. New Journal of Physics, 2009, 11, 035002.	1.2	31
74	Coexistence of antiferromagnetism and superconductivity in $\text{CeCo}(\text{In}_{0.9}\text{Cd}_{0.1})_5$ : A spin lattice relaxation study. Physica B: Condensed Matter, 2008, 403, 1056-1058.	1.3	2
75	Probing the magnetism in the heavy fermion systems by NMR. Physica B: Condensed Matter, 2008, 403, 1010-1012.	1.3	2
76	$^{235}\text{U}$ and $^{121}\text{Sb}$ NMR investigation of an itinerant antiferromagnet, $\text{USb}_2$ . Physica B: Condensed Matter, 2008, 403, 850-851.	1.3	1
77	NMR Studies of Superconducting $\text{LaFeAs}$ Probing the electronic structure of pure and doped $\text{LaFeAs}$	2.9	268
78	$\text{Mn}_2\text{M}$ $\text{CeM}$		

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91	Universal scaling behavior in heavy electron materials. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 754-755.	1.3	3
92	Unconventional superconductivity in. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 915-919.	1.3	7
93	Hyperfine interactions in the heavy fermion CeMn5 systems. <i>New Journal of Physics</i> , 2006, 8, 173-173.	1.2	23
94	Nuclear-Magnetic-Resonance Evidence for Charge Inhomogeneity in Stripe Ordered $\text{La}_{1.8}\text{Eu}_{0.2}\text{SrCuO}_4$ . <i>Physical Review Letters</i> , 2006, 96, 017002.	2.9	25
95	Nuclear spin-lattice relaxation rate in $\text{PuMGa}_5$ (M=Rh,Co): A two-component spin-fermion model. <i>Physical Review B</i> , 2006, 74, .	1.1	10
96	Unconventional superconductivity in $\text{PuCoGa}_5$ . <i>Nature</i> , 2005, 434, 622-625.	13.7	267
97	Scaling and the Magnetic Origin of Emergent Behavior in Correlated Electron Superconductors. <i>MRS Bulletin</i> , 2005, 30, 442-446.	1.7	11
98	Theory of the Knight Shift and Spin-Lattice Relaxation Rate in Pu-115. <i>Materials Research Society Symposia Proceedings</i> , 2005, 893, 1.	0.1	0
99	NQR and T1 studies of the high-pressure phase in $\text{YbInCu}_4$ . <i>Physical Review B</i> , 2005, 71, .	1.1	11
100	Superconductivity in boron-doped diamond. <i>Diamond and Related Materials</i> , 2005, 14, 335-339.	1.8	29
101	Superconductivity in diamond. <i>Nature</i> , 2004, 428, 542-545.	13.7	1,012
102	Superconductivity in Diamond.. <i>ChemInform</i> , 2004, 35, no.	0.1	2
103	Crystalline electric field excitations in the heavy fermion superconductor $\text{CeCoIn}_5$ . <i>Journal of Applied Physics</i> , 2004, 95, 7201-7203.	1.1	12
104	Scaling in the emergent behavior of heavy-electron materials. <i>Physical Review B</i> , 2004, 70, .	1.1	115
105	Glassy spin dynamics in a stripe-ordered cuprate system. , 2004, , .		1
106	Nuclear Magnetic Resonance Studies of $\hat{\Gamma}$ -Stabilized Plutonium. <i>Materials Research Society Symposia Proceedings</i> , 2003, 802, 49.	0.1	9
107	Low-Frequency Spin Dynamics in the $\text{CeMn}_5$ Materials. <i>Physical Review Letters</i> , 2003, 90, 227202.	2.9	51
108	Ce-site dilution studies in the antiferromagnetic heavy fermions $\text{Ce}_m\text{Rh}_n\text{In}_{3m+2n}$ ( $m=1,2;n=0,1$ ). <i>Physical Review B</i> , 2002, 66, .	1.1	43

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109	Correlations between charge ordering and local magnetic fields in overdoped $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ . <i>Physical Review B</i> , 2002, 66, .	1.1	40
110	Unconventional superconductivity in $\text{CeIrIn}_5$ and $\text{CeCoIn}_5$ . <i>Physica B: Condensed Matter</i> , 2002, 312-313, 7-12.	1.3	15
111	Structurally tuned superconductivity in heavy-fermion $\text{CeMIn}_5$ ( $\text{M}=\text{Co, Ir, Rh}$ ). <i>Physica B: Condensed Matter</i> , 2002, 320, 370-375.	1.3	25
112	Probing spatial correlations in the inhomogeneous glassy state of the cuprates by Cu NMR. <i>Journal of Physics and Chemistry of Solids</i> , 2002, 63, 2181-2185.	1.9	9
113	Anomalous NMR magnetic shifts in $\text{CeCoIn}_5$ . <i>Physical Review B</i> , 2001, 64, .	1.1	121
114	Superconductivity and magnetism in a new class of heavy-fermion materials. <i>Journal of Magnetism and Magnetic Materials</i> , 2001, 226-230, 5-10.	1.0	129
115	The Cu NMR Echo Decay in Stripe Ordered $\text{La}_{1.65}\text{Eu}_{0.2}\text{Sr}_{0.15}\text{CuO}_4$ . <i>Physica C: Superconductivity and Its Applications</i> , 2000, 341-348, 1797-1798.	0.6	4
116	Inhomogeneous Low Frequency Spin Dynamics in $\text{La}_{1.65}\text{Eu}_{0.2}\text{Sr}_{0.15}\text{CuO}_4$ . <i>Physical Review Letters</i> , 2000, 85, 642-645.	2.9	126
117	Local-field dependence of the $^{17}\text{O}$ spin-lattice relaxation and echo decay rates in the mixed state of $\text{YBa}_2\text{Cu}_3\text{O}_7$ . <i>Physical Review B</i> , 2000, 62, 3473-3479.	1.1	63
118	Evidence for spiral magnetic order in the heavy fermion material $\text{CeRhIn}_5$ . <i>Physical Review B</i> , 2000, 62, R6100-R6103.	1.1	94
119	Contributions of Spin Lattice Relaxation to the Echo Decay of Planar Cu in High-Temperature Superconductors. <i>Journal of Magnetic Resonance</i> , 1998, 130, 186-194.	1.2	16
120	Double Resonance Probes for Close Frequencies. <i>Journal of Magnetic Resonance</i> , 1998, 135, 273-279.	1.2	32
121	New Methods for NMR of Cuprate Superconductors. <i>Physical Review Letters</i> , 1998, 81, 1489-1492.	2.9	27
122	A partial pressure monitor and controller for stable ozone flow from a silica gel trap. <i>Review of Scientific Instruments</i> , 1998, 69, 2504-2509.	0.6	2
123	J-coupling in high temperature superconductors. <i>Molecular Physics</i> , 1998, 95, 897-906.	0.8	3
124	New double resonance technique for quadrupolar nuclei. <i>Molecular Physics</i> , 1998, 95, 891-896.	0.8	3
125	High-temperature $^{63}\text{Cu}(2)$ nuclear quadrupole and magnetic resonance measurements of $\text{YBa}_2\text{Cu}_4\text{O}_8$ . <i>Physical Review B</i> , 1997, 56, 877-885.	1.1	106
126	$\text{Cu}^{63}(2)$ nuclear quadrupole and nuclear magnetic resonance studies of $\text{YBa}_2\text{Cu}_4\text{O}_8$ in the normal and superconducting states. <i>Physical Review B</i> , 1996, 53, 5907-5914.	1.1	51



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127	Nuclear magnetic resonance and electron spins: Some history, ancient and in the making. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 74, 545-561.	0.6	13