

# Zurab Guguchia

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104  
papers

1,647  
citations

22  
h-index

33  
g-index

115  
ext. papers

2,599  
ext. citations

5.8  
avg. IF

4.46  
L-index

#	Paper	IF	Citations
104	Time-reversal symmetry-breaking charge order in a kagome superconductor.. <i>Nature</i> , <b>2022</b> , 602, 245-250	50.4	10
103	Microscopic evidence for anisotropic multigap superconductivity in the CsV3Sb5 kagome superconductor. <i>Npj Quantum Materials</i> , <b>2022</b> , 7,	5	3
102	Signatures of Weyl Fermion Annihilation in a Correlated Kagome Magnet.. <i>Physical Review Letters</i> , <b>2021</b> , 127, 256403	7.4	3
101	Unconventional Pressure Dependence of the Superfluid Density in the Nodeless Topological Superconductor $\text{PdBi}_2$ . <i>Physical Review Letters</i> , <b>2021</b> , 127, 217002	7.4	2
100	Coexistence of structural and magnetic phases in van der Waals magnet CrI. <i>Nature Communications</i> , <b>2021</b> , 12, 6265	17.4	4
99	Nodeless kagome superconductivity in LaRu3Si2. <i>Physical Review Materials</i> , <b>2021</b> , 5,	3.2	9
98	Split superconducting and time-reversal symmetry-breaking transitions in Sr2RuO4 under stress. <i>Nature Physics</i> , <b>2021</b> , 17, 748-754	16.2	29
97	Probing the superconducting gap structure in the noncentrosymmetric topological superconductor ZrRuAs. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	2
96	Multiple quantum phase transitions of different nature in the topological kagome magnet Co3Sn2InxS2. <i>Npj Quantum Materials</i> , <b>2021</b> , 6,	5	2
95	Unconventional chiral charge order in kagome superconductor KV3Sb5. <i>Nature Materials</i> , <b>2021</b> , 20, 1353-1357	13.7	86
94	Intrinsic nature of chiral charge order in the kagome superconductor RbV3Sb5. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	22
93	Cation Distributions and Magnetic Properties of Ferrispinel MgFeMnO. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 17970-17980	5.1	0
92	Magnetic phase boundary of BaVS3 clarified with high-pressure $\mu$ SR. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	3
91	Penetration depth and gap structure in the antiperovskite oxide superconductor Sr3SnO revealed by $\mu$ SR. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	2
90	Enhanced anomalous Hall effect in the magnetic topological semimetal Co3Sn2InxS2. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	13
89	Unconventional Magnetism in Layered Transition Metal Dichalcogenides. <i>Condensed Matter</i> , <b>2020</b> , 5, 42	1.8	1
88	Strong- to weak-coupling superconductivity in high-Tc bismuthates: Revisiting the phase diagram via $\mu$ SR. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	1

87	Tunable anomalous Hall conductivity through volume-wise magnetic competition in a topological kagome magnet. <i>Nature Communications</i> , <b>2020</b> , 11, 559	17.4	47
86	Near-ideal molecule-based Haldane spin chain. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	1
85	Long-range magnetic order in the $\tilde{S}=1/2$ triangular lattice antiferromagnet $\text{KCeS}_2$ . <i>SciPost Physics</i> , <b>2020</b> , 9,	6.1	7
84	The Unconventional Copper Oxide Superconductor with Conventional Constitution. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2020</b> , 33, 81-85	1.5	2
83	Many-Body Resonance in a Correlated Topological Kagome Antiferromagnet. <i>Physical Review Letters</i> , <b>2020</b> , 125, 046401	7.4	12
82	Time-reversal invariant and fully gapped unconventional superconducting state in the bulk of the topological compound $\text{Nb}_{0.25}\text{Bi}_2\text{Se}_3$ . <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	2
81	Magnetism and ion diffusion in honeycomb layered oxide [Formula: see text]. <i>Scientific Reports</i> , <b>2020</b> , 10, 18305	4.9	8
80	Spin-orbit quantum impurity in a topological magnet. <i>Nature Communications</i> , <b>2020</b> , 11, 4415	17.4	20
79	Using Uniaxial Stress to Probe the Relationship between Competing Superconducting States in a Cuprate with Spin-stripe Order. <i>Physical Review Letters</i> , <b>2020</b> , 125, 097005	7.4	9
78	Pressure Induced Topological Quantum Phase Transition in Weyl Semimetal $\text{Td-MoTe}_2$ . <i>Journal of the Physical Society of Japan</i> , <b>2020</b> , 89, 094707	1.5	1
77	Short-range magnetic interactions and spin-glass behavior in the quasi-two-dimensional nickelate $\text{Pr}_4\text{Ni}_3\text{O}_8$ . <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	8
76	Nodeless superconductivity and its evolution with pressure in the layered dirac semimetal $2\text{M-WS}_2$ . <i>Npj Quantum Materials</i> , <b>2019</b> , 4,	5	10
75	Superconductivity in a unique type of copper oxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 12156-12160	11.5	51
74	Nodeless superconductivity and preserved time-reversal symmetry in the noncentrosymmetric $\text{Mo}_3\text{P}$ superconductor. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	14
73	BR and magnetometry study of the type-I superconductor $\text{BeAu}$ . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	16
72	$\text{Ba}(\text{Zn},\text{Co})_2\text{As}_2$ : A diluted ferromagnetic semiconductor with n-type carriers and isostructural to 122 iron-based superconductors. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	12
71	Magnetic phase diagram of $\text{KCrO}$ clarified by high-pressure muon spin spectroscopy. <i>Scientific Reports</i> , <b>2019</b> , 9, 1141	4.9	6
70	Magnetic-Field Control of Topological Electronic Response near Room Temperature in Correlated Kagome Magnets. <i>Physical Review Letters</i> , <b>2019</b> , 123, 196604	7.4	12

69	Probing the quantum phase transition in Mott insulator BaCoS <sub>2</sub> tuned by pressure and Ni substitution. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	4
68	Negative flat band magnetism in a spin-orbit-coupled correlated kagome magnet. <i>Nature Physics</i> , <b>2019</b> , 15, 443-448	16.2	132
67	Reply to Yamamoto: A cuprate superconductor with unconventional features. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 18166-18167	11.5	1
66	Superconducting order parameter of the nodal-line semimetal NaAlSi. <i>APL Materials</i> , <b>2019</b> , 7, 121103	5.7	8
65	Intertwined magnetic, structural, and electronic transitions in V <sub>2</sub> O <sub>3</sub> . <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	4
64	Unconventional scaling of the superfluid density with the critical temperature in transition metal dichalcogenides. <i>Science Advances</i> , <b>2019</b> , 5, eaav8465	14.3	9
63	Magnetic tricritical point and nematicity in FeSe under pressure. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	11
62	Disentangling superconducting and magnetic orders in NaFe <sub>1-x</sub> Ni <sub>x</sub> As using muon spin rotation. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	3
61	$\mu$ SR Study of K <sub>2</sub> Cr <sub>8</sub> O <sub>16</sub> Under Hydrostatic Pressure <b>2018</b> ,		1
60	Magnetism in semiconducting molybdenum dichalcogenides. <i>Science Advances</i> , <b>2018</b> , 4, eaat3672	14.3	56
59	Phase separation at the dimer-superconductor transition in Ir <sub>1-x</sub> Rh <sub>x</sub> Te <sub>2</sub> . <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	4
58	Absence of local fluctuating dimers in superconducting Ir <sub>1-x</sub> (Pt,Rh) <sub>x</sub> Te <sub>2</sub> . <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	7
57	Magnetic states of MnP: muon-spin rotation studies. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 164008	10.8	9
56	Ground state selection under pressure in the quantum pyrochlore magnet YbTiO. <i>Nature Communications</i> , <b>2017</b> , 8, 14810	17.4	16
55	Signatures of the topological s superconducting order parameter in the type-II Weyl semimetal T-MoTe. <i>Nature Communications</i> , <b>2017</b> , 8, 1082	17.4	62
54	Local Orthorhombicity in the Magnetic C <sub>4</sub> Phase of the Hole-Doped Iron-Arsenide Superconductor Sr <sub>1-x</sub> Na <sub>x</sub> Fe <sub>2</sub> As <sub>2</sub> . <i>Physical Review Letters</i> , <b>2017</b> , 119, 187001	7.4	18
53	Two-gap superconductivity in Mo <sub>8</sub> Ga <sub>4</sub> 1 and its evolution upon vanadium substitution. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	20
52	Complementary Response of Static Spin-Stripe Order and Superconductivity to Nonmagnetic Impurities in Cuprates. <i>Physical Review Letters</i> , <b>2017</b> , 119, 087002	7.4	5

51	Evidence for strong lattice effects as revealed from huge unconventional oxygen isotope effects on the pseudogap temperature in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ . <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	16
50	Pressure tuning of structure, superconductivity, and novel magnetic order in the Ce-underdoped electron-doped cuprate $\text{Tb}_{1.3}\text{La}_{0.7}\text{Ce}_x\text{CuO}_4$ ( $x=0.1$ ). <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	6
49	Pressure-induced magnetic order in FeSe: A muon spin rotation study. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	19
48	Hydrostatic pressure effects on the static magnetism in $\text{Eu}(\text{FeCo})\text{As}$ . <i>Scientific Reports</i> , <b>2017</b> , 7, 3532	4.9	6
47	A low-background piston-cylinder-type hybrid high pressure cell for muon-spin rotation/relaxation experiments. <i>High Pressure Research</i> , <b>2017</b> , 37, 449-464	1.6	15
46	Unexpected magnetism at high temperature and novel magneto-dielectric-elastic coupling in $\text{EuTiO}_3$ : A critical review. <i>Thin Solid Films</i> , <b>2017</b> , 643, 3-6	2.2	6
45	Growth and structural characterization of large superconducting crystals of $\text{La}_{2-x}\text{Ca}_{1+x}\text{Cu}_2\text{O}_6$ . <i>Physical Review Materials</i> , <b>2017</b> , 1,	3.2	2
44	Influence of hydrostatic pressure on the bulk magnetic properties of $\text{Eu}_2\text{Ir}_2\text{O}_7$ . <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	13
43	Coexistence of low-moment magnetism and superconductivity in tetragonal FeS and suppression of $T_c$ under pressure. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	25
42	High-pressure magnetic state of MnP probed by means of muon-spin rotation. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	20
41	Magnetic ordering in the ultrapure site-diluted spin chain materials $\text{SrCu}_{1-x}\text{Ni}_x\text{O}_2$ . <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	6
40	Probing the pairing symmetry in the over-doped Fe-based superconductor $\text{Ba}_{0.35}\text{Rb}_{0.65}\text{Fe}_2\text{As}_2$ as a function of hydrostatic pressure. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	10
39	Proximity-induced superconductivity within the insulating $(\text{Li}_{0.84}\text{Fe}_{0.16})\text{OH}$ layers in $(\text{Li}_{0.84}\text{Fe}_{0.16})\text{OHFe}_{0.98}\text{Se}$ . <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	25
38	Effect of disorder on a pressure-induced $z=1$ magnetic quantum phase transition. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	3
37	High pressure research using muons at the Paul Scherrer Institute. <i>High Pressure Research</i> , <b>2016</b> , 36, 140-166	5.1	51
36	Field-induced transition of the magnetic ground state from A-type antiferromagnetic to ferromagnetic order in $\text{CsCo}_2\text{Se}_2$ . <i>Journal of Physics Condensed Matter</i> , <b>2016</b> , 28, 276001	1.8	5
35	Phase diagram of Eu magnetic ordering in Sn-flux-grown $\text{Eu}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ single crystals. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	17
34	Complexity in the structural and magnetic properties of almost multiferroic $\text{EuTiO}_3$ . <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	5

33	Cooperative coupling of static magnetism and bulk superconductivity in the stripe phase of $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ : Pressure- and doping-dependent studies. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	8
32	New Fluoride-arsenide Diluted Magnetic Semiconductor $(\text{Ba},\text{K})\text{F}(\text{Zn},\text{Mn})\text{As}$ with Independent Spin and Charge Doping. <i>Scientific Reports</i> , <b>2016</b> , 6, 36578	4.9	14
31	Volume-wise destruction of the antiferromagnetic Mott insulating state through quantum tuning. <i>Nature Communications</i> , <b>2016</b> , 7, 12519	17.4	22
30	Ferromagnetic Quantum Critical Point Avoided by the Appearance of Another Magnetic Phase in $\text{LaCrGe}_3$ under Pressure. <i>Physical Review Letters</i> , <b>2016</b> , 117, 037207	7.4	23
29	Direct evidence for a pressure-induced nodal superconducting gap in the $\text{Ba}_{0.65}\text{Rb}_{0.35}\text{Fe}_2\text{As}_2$ superconductor. <i>Nature Communications</i> , <b>2015</b> , 6, 8863	17.4	28
28	Oxygen isotope effects on lattice properties of $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ ( $x=1/8$ ). <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	1
27	Strong enhancement of s-wave superconductivity near a quantum critical point of $\text{Ca}_3\text{Ir}_4\text{Sn}_{13}$ . <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	18
26	Mutual Independence of Critical Temperature and Superfluid Density under Pressure in Optimally Electron-Doped Superconducting $\text{LaFeAsO}(1-x)\text{F}(x)$ . <i>Physical Review Letters</i> , <b>2015</b> , 114, 247004	7.4	17
25	Pressure-induced electronic phase separation of magnetism and superconductivity in CrAs. <i>Scientific Reports</i> , <b>2015</b> , 5, 13788	4.9	34
24	Tiny cause with huge impact: polar instability through strong magneto-electric-elastic coupling in bulk $\text{EuTiO}_3$ . <i>Journal of Physics Condensed Matter</i> , <b>2015</b> , 27, 262201	1.8	9
23	Probing the multi gap behavior within $\text{FeAs}$ and $\text{FeTe}$ families of iron based superconductors: the muon-spin rotation studies. <i>Superconductor Science and Technology</i> , <b>2015</b> , 28, 034003	3.1	14
22	Superconductivity in a new layered bismuth oxyselenide: $\text{LaO}(0.5)\text{F}(0.5)\text{BiSe}$ . <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 215702	1.8	55
21	Lattice and polarizability mediated spin activity in $\text{EuTiO}_3$ . <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 022202	1.8	21
20	Effect of pressure-driven local structural rearrangement on the superconducting properties of $\text{FeSe}_{0.5}\text{Te}_{0.5}$ . <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	7
19	Spin-lattice coupling induced weak dynamical magnetism in $\text{EuTiO}_3$ at high temperatures. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	19
18	Negative oxygen isotope effect on the static spin stripe order in superconducting $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ ( $x=1/8$ ) observed by muon-spin rotation. <i>Physical Review Letters</i> , <b>2014</b> , 113, 057002	7.4	10
17	Nonlinear pressure dependence of TN in almost multiferroic $\text{EuTiO}_3$ . <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 376002	1.8	9
16	The low temperature magnetic phase diagram of $\text{Eu}_x\text{Sr}_{1-x}\text{TiO}_3$ . <i>European Physical Journal B</i> , <b>2013</b> , 86, 1	1.2	12

15	Muon-Spin Rotation and Magnetization Studies of Chemical and Hydrostatic Pressure Effects in $\text{EuFe}_2(\text{As}_{1-x}\text{P}_x)_2$ . <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2013</b> , 26, 285-295	1.5	14
14	Effect of pressure on the Cu and Pr magnetism in $\text{Nd}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ investigated by muon spin rotation. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	6
13	Tuning the static spin-stripe phase and superconductivity in $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ ( $x = 1/8$ ) by hydrostatic pressure. <i>New Journal of Physics</i> , <b>2013</b> , 15, 093005	2.9	18
12	Magnetic structure of superconducting $\text{Eu}(\text{Fe}_{0.82}\text{Co}_{0.18})_2\text{As}_2$ as revealed by single-crystal neutron diffraction. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	29
11	Tuning the structural instability of $\text{SrTiO}_3$ by Eu doping: The phase diagram of $\text{Sr}_{1-x}\text{Eu}_x\text{TiO}_3$ . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	31
10	Muon Spin Rotation Study of the Intercalated Graphite Superconductor $\text{CaC}_6$ at Low Temperatures. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2012</b> , 25, 159-163	1.5	1
9	Superconductivity and magnetism in $\text{Rb}_x\text{Fe}_2\text{VSe}_2$ : Impact of thermal treatment on mesoscopic phase separation. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	23
8	Magnetic field enhanced structural instability in $\text{EuTiO}_3$ . <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 492201	1.8	25
7	Hybrid paramagnon phonon modes at elevated temperatures in $\text{EuTiO}_3$ . <i>New Journal of Physics</i> , <b>2012</b> , 14, 093013	2.9	18
6	Lattice dynamics and anomalous softening in the $\text{YbFe}_4\text{Sb}_{12}$ skutterudite. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	9
5	$\mu\text{SR}$ investigation of magnetism and magnetoelectric coupling in $\text{Cu}_2\text{OSeO}_3$ . <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	22
4	Anisotropic magnetic order of the Eu sublattice in single crystals of $\text{EuFe}_2\text{Co}_x\text{As}_2$ ( $x=0,0.2$ ) studied by means of magnetization and magnetic torque. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	23
3	Strong coupling between $\text{Eu}^{2+}$ spins and $\text{Fe}_2\text{As}_2$ layers in $\text{EuFe}_{1.9}\text{Co}_{0.1}\text{As}_2$ observed with NMR. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	21
2	Muon-spin rotation measurements of the magnetic penetration depth in the iron-based superconductor $\text{Ba}_{1-x}\text{Rb}_x\text{Fe}_2\text{As}_2$ . <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	18
1	Group-9 Transition-Metal Suboxides Adopting the Filled- $\text{Ti}_2\text{Ni}$ Structure: A Class of Superconductors Exhibiting Exceptionally High Upper Critical Fields. <i>Chemistry of Materials</i> ,	9.6	2