

# Zurab Guguchia

## List of Publications by Citations

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104  
papers

1,647  
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22  
h-index

33  
g-index

115  
ext. papers

2,599  
ext. citations

5.8  
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4.46  
L-index

#	Paper	IF	Citations
104	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
103	Unconventional chiral charge order in kagome superconductor KVSb. <i>Nature Materials</i> , <b>2021</b> , 20, 1353-1357	13.7	86
102	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
101	Magnetism in semiconducting molybdenum dichalcogenides. <i>Science Advances</i> , <b>2018</b> , 4, eaat3672	14.3	56
100	Superconductivity in a new layered bismuth oxyselenide: LaO(0.5)F(0.5)BiSe. <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 215702	1.8	55
99	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
98	High pressure research using muons at the Paul Scherrer Institute. <i>High Pressure Research</i> , <b>2016</b> , 36, 140-166	1.6	51
97	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
96	Pressure-induced electronic phase separation of magnetism and superconductivity in CrAs. <i>Scientific Reports</i> , <b>2015</b> , 5, 13788	4.9	34
95	Tuning the structural instability of SrTiO <sub>3</sub> by Eu doping: The phase diagram of Sr <sub>1-x</sub> Eu <sub>x</sub> TiO <sub>3</sub> . <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	31
94	Magnetic structure of superconducting Eu(Fe <sub>0.82</sub> Co <sub>0.18</sub> ) <sub>2</sub> As <sub>2</sub> as revealed by single-crystal neutron diffraction. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	29
93	Split superconducting and time-reversal symmetry-breaking transitions in Sr <sub>2</sub> RuO <sub>4</sub> under stress. <i>Nature Physics</i> , <b>2021</b> , 17, 748-754	16.2	29
92	Direct evidence for a pressure-induced nodal superconducting gap in the Ba <sub>0.65</sub> Rb <sub>0.35</sub> Fe <sub>2</sub> As <sub>2</sub> superconductor. <i>Nature Communications</i> , <b>2015</b> , 6, 8863	17.4	28
91	Coexistence of low-moment magnetism and superconductivity in tetragonal FeS and suppression of T <sub>c</sub> under pressure. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	25
90	Proximity-induced superconductivity within the insulating (Li <sub>0.84</sub> Fe <sub>0.16</sub> )OH layers in (Li <sub>0.84</sub> Fe <sub>0.16</sub> )OHFe <sub>0.98</sub> Se. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	25
89	Magnetic field enhanced structural instability in EuTiO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 492201	1.8	25
88	Anisotropic magnetic order of the Eu sublattice in single crystals of EuFe <sub>2-x</sub> CoxAs <sub>2</sub> (x=0,0.2) studied by means of magnetization and magnetic torque. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	23

87	Superconductivity and magnetism in $Rb_xFe_{2-x}Se_2$ : Impact of thermal treatment on mesoscopic phase separation. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	23
86	Ferromagnetic Quantum Critical Point Avoided by the Appearance of Another Magnetic Phase in $LaCrGe_{\{3\}}$ under Pressure. <i>Physical Review Letters</i> , <b>2016</b> , 117, 037207	7.4	23
85	NR investigation of magnetism and magnetoelectric coupling in $Cu_2OSeO_3$ . <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	22
84	Intrinsic nature of chiral charge order in the kagome superconductor $RbV_3Sb_5$ . <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	22
83	Volume-wise destruction of the antiferromagnetic Mott insulating state through quantum tuning. <i>Nature Communications</i> , <b>2016</b> , 7, 12519	17.4	22
82	Lattice and polarizability mediated spin activity in $EuTiO_3$ . <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 022202	1.8	21
81	Strong coupling between $Eu^{2+}$ spins and $Fe_2As_2$ layers in $EuFe_{1.9}Co_{0.1}As_2$ observed with NMR. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	21
80	Two-gap superconductivity in $Mo_8Ga_4$ and its evolution upon vanadium substitution. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	20
79	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
78	Spin-orbit quantum impurity in a topological magnet. <i>Nature Communications</i> , <b>2020</b> , 11, 4415	17.4	20
77	Spin-lattice coupling induced weak dynamical magnetism in $EuTiO_3$ at high temperatures. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	19
76	Pressure-induced magnetic order in $FeSe$ : A muon spin rotation study. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	19
75	Local Orthorhombicity in the Magnetic $C_{\{4\}}$ Phase of the Hole-Doped Iron-Arsenide Superconductor $Sr_{\{1-x\}}Na_{\{x\}}Fe_{\{2\}}As_{\{2\}}$ . <i>Physical Review Letters</i> , <b>2017</b> , 119, 187001	7.4	18
74	Strong enhancement of s-wave superconductivity near a quantum critical point of $Ca_3Ir_4Sn_{13}$ . <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	18
73	Tuning the static spin-stripe phase and superconductivity in $La_{2-x}BaxCuO_4$ ( $x = 1/8$ ) by hydrostatic pressure. <i>New Journal of Physics</i> , <b>2013</b> , 15, 093005	2.9	18
72	Muon-spin rotation measurements of the magnetic penetration depth in the iron-based superconductor $Ba_{1-x}Rb_xFe_2As_2$ . <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	18
71	Hybrid paramagnon phonon modes at elevated temperatures in $EuTiO_3$ . <i>New Journal of Physics</i> , <b>2012</b> , 14, 093013	2.9	18
70	Mutual Independence of Critical Temperature and Superfluid Density under Pressure in Optimally Electron-Doped Superconducting $LaFeAsO(1-x)F(x)$ . <i>Physical Review Letters</i> , <b>2015</b> , 114, 247004	7.4	17

69	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
68	Ground state selection under pressure in the quantum pyrochlore magnet $\text{YbTiO}$ . <i>Nature Communications</i> , <b>2017</b> , 8, 14810	17.4	16
67	NR and magnetometry study of the type-I superconductor $\text{BeAu}$ . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	16
66	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
65	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
64	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
63	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
62	Probing the multi gap behavior within 11b and 122 families of iron based superconductors: the muon-spin rotation studies. <i>Superconductor Science and Technology</i> , <b>2015</b> , 28, 034003	3.1	14
61	New Fluoride-arsenide Diluted Magnetic Semiconductor $(\text{Ba,K})\text{F}(\text{Zn,Mn})\text{As}$ with Independent Spin and Charge Doping. <i>Scientific Reports</i> , <b>2016</b> , 6, 36578	4.9	14
60	Enhanced anomalous Hall effect in the magnetic topological semimetal $\text{Co}_3\text{Sn}_2\text{In}_x\text{S}_2$ . <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	13
59	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
58	$\text{Ba}(\text{Zn,Co})_2\text{As}_2$ : 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
57	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
56	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
55	Many-Body Resonance in a Correlated Topological Kagome Antiferromagnet. <i>Physical Review Letters</i> , <b>2020</b> , 125, 046401	7.4	12
54	Magnetic tricritical point and nematicity in $\text{FeSe}$ under pressure. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	11
53	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
52	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

51	Negative oxygen isotope effect on the static spin stripe order in superconducting La(2-x)Ba(x)CuO(4) (x=1/8) observed by muon-spin rotation. <i>Physical Review Letters</i> , <b>2014</b> , 113, 057002	7.4	10
50	Time-reversal symmetry-breaking charge order in a kagome superconductor.. <i>Nature</i> , <b>2022</b> , 602, 245-250	50.4	10
49	Magnetic states of MnP: muon-spin rotation studies. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 164003	10.3	9
48	Nonlinear pressure dependence of TN in almost multiferroic EuTiO3. <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 376002	1.8	9
47	Tiny cause with huge impact: polar instability through strong magneto-electric-elastic coupling in bulk EuTiO3. <i>Journal of Physics Condensed Matter</i> , <b>2015</b> , 27, 262201	1.8	9
46	Lattice dynamics and anomalous softening in the YbFe4Sb12 skutterudite. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	9
45	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
44	Nodeless kagome superconductivity in LaRu3Si2. <i>Physical Review Materials</i> , <b>2021</b> , 5,	3.2	9
43	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
42	Magnetism and ion diffusion in honeycomb layered oxide [Formula: see text]. <i>Scientific Reports</i> , <b>2020</b> , 10, 18305	4.9	8
41	Short-range magnetic interactions and spin-glass behavior in the quasi-two-dimensional nickelate Pr4Ni3O8. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	8
40	Cooperative coupling of static magnetism and bulk superconductivity in the stripe phase of La2-xBaxCuO4: Pressure- and doping-dependent studies. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	8
39	Superconducting order parameter of the nodal-line semimetal NaAlSi. <i>APL Materials</i> , <b>2019</b> , 7, 121103	5.7	8
38	Effect of pressure-driven local structural rearrangement on the superconducting properties of FeSe0.5Te0.5. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	7
37	Long-range magnetic order in the $\tilde{S}=1/2$ triangular lattice antiferromagnet KCeS2. <i>SciPost Physics</i> , <b>2020</b> , 9,	6.1	7
36	Absence of local fluctuating dimers in superconducting Ir1-x(Pt,Rh)xTe2. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	7
35	Magnetic phase diagram of KCrO clarified by high-pressure muon spin spectroscopy. <i>Scientific Reports</i> , <b>2019</b> , 9, 1141	4.9	6
34	Magnetic ordering in the ultrapure site-diluted spin chain materials SrCu1-xNixO2. <i>Physical Review B</i> , <b>2016</b> , 93,	3.3	6

33	Effect of pressure on the Cu and Pr magnetism in $\text{Nd}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$ investigated by muon spin rotation. <i>Physical Review B</i> , <b>2013</b> , 87,	3-3	6
32	Pressure tuning of structure, superconductivity, and novel magnetic order in the Ce-underdoped electron-doped cuprate $\text{T}^*\text{Pr}_{1.3}\text{La}_{0.7}\text{Ce}_x\text{CuO}_4$ ( $x=0.1$ ). <i>Physical Review B</i> , <b>2017</b> , 96,	3-3	6
31	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
30	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
29	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
28	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
27	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
26	Probing the quantum phase transition in Mott insulator $\text{BaCo}_2$ tuned by pressure and Ni substitution. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3-2	4
25	Coexistence of structural and magnetic phases in van der Waals magnet $\text{CrI}$ . <i>Nature Communications</i> , <b>2021</b> , 12, 6265	17-4	4
24	Intertwined magnetic, structural, and electronic transitions in $\text{V}_2\text{O}_3$ . <i>Physical Review B</i> , <b>2019</b> , 100,	3-3	4
23	Phase separation at the dimer-superconductor transition in $\text{Ir}_{1-x}\text{Rh}_x\text{Te}_2$ . <i>Physical Review B</i> , <b>2018</b> , 98,	3-3	4
22	Magnetic phase boundary of $\text{BaVS}_3$ clarified with high-pressure $\mu\text{SR}$ . <i>Physical Review B</i> , <b>2020</b> , 101,	3-3	3
21	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
20	Disentangling superconducting and magnetic orders in $\text{NaFe}_{1-x}\text{Ni}_x\text{As}$ using muon spin rotation. <i>Physical Review B</i> , <b>2018</b> , 97,	3-3	3
19	Signatures of Weyl Fermion Annihilation in a Correlated Kagome Magnet.. <i>Physical Review Letters</i> , <b>2021</b> , 127, 256403	7-4	3
18	Microscopic evidence for anisotropic multigap superconductivity in the $\text{CsV}_3\text{Sb}_5$ kagome superconductor. <i>Npj Quantum Materials</i> , <b>2022</b> , 7,	5	3
17	Penetration depth and gap structure in the antiperovskite oxide superconductor $\text{Sr}_3\text{SnO}$ revealed by $\mu\text{SR}$ . <i>Physical Review B</i> , <b>2020</b> , 101,	3-3	2
16	Growth and structural characterization of large superconducting crystals of $\text{La}_2\text{Ca}_{1+x}\text{Cu}_2\text{O}_6$ . <i>Physical Review Materials</i> , <b>2017</b> , 1,	3-2	2

15	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
14	Group-9 Transition-Metal Suboxides Adopting the Filled-Ti <sub>2</sub> Ni Structure: A Class of Superconductors Exhibiting Exceptionally High Upper Critical Fields. <i>Chemistry of Materials</i> ,	9.6	2
13	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
12	Time-reversal invariant and fully gapped unconventional superconducting state in the bulk of the topological compound Nb <sub>0.25</sub> Bi <sub>2</sub> Se <sub>3</sub> . <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	2
11	Probing the superconducting gap structure in the noncentrosymmetric topological superconductor ZrRuAs. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	2
10	Multiple quantum phase transitions of different nature in the topological kagome magnet Co <sub>3</sub> Sn <sub>2</sub> In <sub>x</sub> S <sub>2</sub> . <i>Npj Quantum Materials</i> , <b>2021</b> , 6,	5	2
9	Unconventional Magnetism in Layered Transition Metal Dichalcogenides. <i>Condensed Matter</i> , <b>2020</b> , 5, 42	1.8	1
8	Strong- to weak-coupling superconductivity in high-T <sub>c</sub> bismuthates: Revisiting the phase diagram via BR. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	1
7	Oxygen isotope effects on lattice properties of La <sub>2-x</sub> BaxCuO <sub>4</sub> (x=1/8). <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	1
6	Muon Spin Rotation Study of the Intercalated Graphite Superconductor CaC <sub>6</sub> at Low Temperatures. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2012</b> , 25, 159-163	1.5	1
5	Near-ideal molecule-based Haldane spin chain. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	1
4	Pressure Induced Topological Quantum Phase Transition in Weyl Semimetal Td-MoTe <sub>2</sub> . <i>Journal of the Physical Society of Japan</i> , <b>2020</b> , 89, 094707	1.5	1
3	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
2	$\mu$ SR Study of K <sub>2</sub> Cr <sub>8</sub> O <sub>16</sub> Under Hydrostatic Pressure <b>2018</b> ,		1
1	Cation Distributions and Magnetic Properties of Ferrispinel MgFeMnO. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 17970-17980	5.1	0