

# Valentin Taufour

## List of Publications by Year in descending order

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Version: 2024-02-01

98  
papers

2,648  
citations

201674

27  
h-index

197818

49  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2539  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dirac lines and loop at the Fermi level in the time-reversal symmetry breaking superconductor LaNiGa <sub>2</sub> . Communications Physics, 2022, 5, .	5.3	15
2	Separation of Kondo lattice coherence from crystal electric field in $\text{CeIn}_3$ with Nd substitutions. Physical Review B, 2022, 105, .	3.2	6
3	Nonsymmorphic band sticking in a topological superconductor. Physical Review B, 2022, 105, .	4.5	2
4	Effects of magnetic and non-magnetic doping on the vortex lattice in MgB <sub>2</sub> . Journal of Applied Crystallography, 2022, 55, 693-701.	2.4	2
5	Statistics on magnetic properties of Co compounds: A database-driven method for discovering Co-based ferromagnets. Physical Review Materials, 2022, 6, .		0
6	High-Pressure Synthesis Approaches to Quantum Materials. , 2021, , 221-237.	4.0	6
7	Deconvoluting the Magnetic Structure of the Commensurately Modulated Quinary Zintl Phase Eu <sub>11</sub> Sr <sub>11</sub> Zn <sub>4</sub> Sn <sub>2</sub> As <sub>12</sub> . Inorganic Chemistry, 2021, 60, 5711-5723.	1.3	7
8	Oblique-incidence Sagnac interferometric scanning microscope for studying magneto-optic effects of materials at low temperatures. Review of Scientific Instruments, 2021, 92, 043706.	3.2	7
9	Magnetic properties of the itinerant ferromagnet $\text{LaCrGe}_3$ under pressure studied by $^{51}\text{V}$ NMR. Physical Review B, 2021, 103, 103401.	5.5	1
10	Stabilization of CeGe <sub>3</sub> with Ti and O featuring tetravalent Ce ions: (Ce <sub>0.85</sub> Ti <sub>0.15</sub> )Ge <sub>3</sub> O <sub>0.5</sub> . Journal of Alloys and Compounds, 2021, 863, 158354.	3.2	7
11	Inhomogeneous Knight shift in vortex cores of superconducting FeSe. Physical Review B, 2021, 104, .	3.2	2
12	Electronic structure and topology across the magnetic Weyl semimetal $\text{TaTe}_3$ in the magnetic Weyl semimetal $\text{Co}_3\text{S}_2$ . Physical Review B, 2021, 104, 104104.	1.8	2
13	Robust antiferromagnetism in $\text{YCo}_3$ . Physical Review B, 2021, 104, 104104.	8.0	11
14	Magnetic properties of $\text{Fe}_2\text{O}_3$ nanoparticles in a porous SiO <sub>2</sub> shell for drug delivery. Journal of Physics Condensed Matter, 2021, 33, 065301.	2.3	5
15	Interfacial-Redox-Induced Tuning of Superconductivity in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> . ACS Applied Materials & Interfaces, 2020, 12, 4741-4748.	5.4	0
16	Reinvestigation of the intrinsic magnetic properties of $\text{FeAs}_2$ . Physical Review B, 2020, 101, 101101.	3.2	2
17	Magnetic Materials, 2020, 513, 167214. Measured and simulated thermoelectric properties of $\text{FeAs}_2\text{Se}_x$ ( $x = 0, 1$ ). Journal of Applied Physics, 2020, 123, 104501.		
18	Pressure-induced suppression of ferromagnetism in the itinerant ferromagnet LaCrSb <sub>3</sub> . Physical Review B, 2020, 101, .		

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19	Enhanced magnetic properties of aluminum oxide nanopowder reinforced with carbon nanotubes. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	3
20	Study of the ferromagnetic quantum phase transition in Ce <sub>3-x</sub> Mg <sub>x</sub> Co <sub>9</sub> . Philosophical Magazine, 2020, 100, 1607-1619.	1.6	6
21	Topological surface states above the Fermi level in Hf <sub>2</sub> Te <sub>2</sub> P. Physical Review B, 2019, 100, .	3.2	4
22	Magnetic fluctuations in the itinerant ferromagnet $\text{LaCrGe}_3$ studied by NMR. Physical Review B, 2019, 99, .	3.2	4
23	Self-Consistent Two-Gap Description of MgB <sub>2</sub> Superconductor. Symmetry, 2019, 11, 1012.	2.2	9
24	Ambipolar Topological Insulator and High Carrier Mobility in Solution Grown Ultrathin Nanoplates of Sb-Doped Bi <sub>2</sub> Se <sub>3</sub> . ACS Applied Electronic Materials, 2019, 1, 1917-1923.	4.3	11
25	Mg assisted flux growth and characterization of single crystalline Sm <sub>2</sub> Co <sub>17</sub> . AIP Advances, 2019, 9, 035138.	1.3	1
26	Transformation of a Pauli Paramagnet into a Strong Permanent Magnet. Physical Review Applied, 2018, 9, .	3.8	21
27	Pressure dependence of coherence-incoherence crossover behavior in KFe <sub>2</sub> As <sub>2</sub> observed by resistivity and As <sup>75</sup> -NMR/NQR. Physical Review B, 2018, 97, .	3.2	10
28	Quantum tricritical point in the temperature-pressure-magnetic field phase diagram of $\text{CeTiGe}_3$ . Physical Review B, 2018, 97, .	3.2	10
29	Screening of fragile magnetism: Case study of $\text{LaCrGe}_3$ and $\text{LaCrSb}_3$ .	3.2	6
30	Ferromagnetic quantum criticality: New aspects from the phase diagram of $\text{LaCrGe}_3$ . Physica B: Condensed Matter, 2018, 536, 483-487.	2.7	9
31	Eu <sub>11</sub> Zn <sub>4</sub> Sn <sub>2</sub> As <sub>12</sub> : A Ferromagnetic Zintl Semiconductor with a Layered Structure Featuring Extended Zn <sub>4</sub> As <sub>6</sub> Sheets and Ethane-like Sn <sub>2</sub> As <sub>6</sub> Units. Chemistry of Materials, 2018, 30, 7067-7076.	6.7	12
32	Effect of nickel substitution on magnetism in the layered van der Waals ferromagnet $\text{Fe}_3\text{Te}_2$ . Physical Review B, 2018, 98, .	3.2	10
33	Thermoelectric Properties of CoAsSb: An Experimental and Theoretical Study. Chemistry of Materials, 2018, 30, 4207-4215.	6.7	5
34	Polar Intermetallics Pr <sub>5</sub> Co <sub>2</sub> Ge <sub>3</sub> and Pr <sub>7</sub> Co <sub>2</sub> Ge <sub>4</sub> with Planar Hydrocarbon-Like Metal Clusters. Chemistry - A European Journal, 2017, 23, 10516-10521.	3.3	7
35	Tuning the Kondo effect in $\text{Yb}_2\text{Co}$ . Physical Review B, 2017, 95, .	3.2	10
36	Pressure-induced half-collapsed-tetragonal phase in $\text{CaKFe}_4$ . Physical Review B, 2017, 96, .	3.2	10

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37	Growth and characterization of BaZnGa. Philosophical Magazine, 2017, 97, 3317-3324.	1.6	0
38	Tricritical wings and modulated magnetic phases in LaCrGe <sub>3</sub> under pressure. Nature Communications, 2017, 8, 546.	12.8	46
39	Dome of magnetic order inside the nematic phase of sulfur-substituted FeSe under pressure. Physical Review B, 2017, 96, .	3.2	34
40	Discovery of orbital-selective Cooper pairing in FeSe. Science, 2017, 357, 75-80.	12.6	283
41	Discovery of ferromagnetism with large magnetic anisotropy in ZrMnP and HfMnP. Applied Physics Letters, 2016, 109, .	3.3	24
42	Anisotropic thermodynamic and transport properties of single-crystalline $\text{CaKFe}_4\text{As}_2$ . Physical Review B, 2016, 94, .	3.2	16
43	Ferromagnetic Quantum Critical Point Avoided by the Appearance of Another Magnetic Phase in $\text{LaCrGe}_3$ under Pressure. Physical Review Letters, 2016, 117, 037207.	7.8	47
44	Variation of transition temperatures and residual resistivity ratio in vapor-grown FeSe. Physical Review B, 2016, 94, .	3.2	81
45	Stabilization of a Metastable Fibrous $\text{Bi}_{2.2}(1-x)\text{Co}_x\text{O}_{10}$ Phase with Pseudo-Pentagonal Symmetry Prepared Using a Bi Self-Flux. Chemistry of Materials, 2016, 28, 8484-8488.	6.7	2
46	Origin of the Resistivity Anisotropy in the Nematic Phase of FeSe. Physical Review Letters, 2016, 117, 127001.	7.8	93
47	Nonmonotonic pressure evolution of the upper critical field in superconducting FeSe. Physical Review B, 2016, 93, .	3.2	46
48	Superconducting properties of $\text{Rh}_4\text{S}_4$ single crystals. Physical Review B, 2016, 93, .	3.2	7
49	Isotope effect on electron-phonon interaction in the multiband superconductor $\text{MgB}_2$ . Physical Review B, 2016, 93, .	3.2	7
50	Imaging the magnetic nanodomains in $\text{Nd}_2\text{Co}_5$ . Physical Review B, 2016, 93, .	3.2	5
51	Thermoelectric power quantum oscillations in the ferromagnet $\text{UGe}_2$ . Physical Review B, 2016, 93, .	3.2	1
52	Constraints on the merging of the transition lines at the tricritical point in a wing-structure phase diagram. Physical Review B, 2016, 94, .	3.2	8
53	Strong cooperative coupling of pressure-induced magnetic order and nematicity in FeSe. Nature Communications, 2016, 7, 12728.	12.8	106
54	Anisotropic physical properties and pressure dependent magnetic ordering of $\text{CrAuTe}_4$ . Physical Review B, 2016, 94, .	3.2	3

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55	A study of the physical properties of single crystalline Fe <sub>5</sub> B <sub>2</sub> P. Journal of Magnetism and Magnetic Materials, 2016, 401, 525-531.	2.3	27
56	Structural and Ferromagnetic Properties of an Orthorhombic Phase of MnBi Stabilized with Rh Additions. Physical Review Applied, 2015, 4, .	3.8	21
57	Strong interaction between electrons and collective excitations in the multiband superconductor MgB <sub>2</sub> . Physical Review B, 2015, 91, .	3.2	16
58	Pressure-induced collapsed-tetragonal phase in SrCo <sub>2</sub> As <sub>2</sub> . Physical Review B, 2015, 92, .	3.2	16
59	Remarkably Robust and Correlated Coherence and Antiferromagnetism in Superconductivity versus structural phase transition in the closely related S <sub>1</sub> Ce <sub>1</sub> Bi <sub>2</sub> and S <sub>2</sub> Ce <sub>1</sub> Bi <sub>2</sub> . Physical Review B, 2015, 91, .	3.2	16
60	Superconductivity versus structural phase transition in the closely related S <sub>1</sub> Ce <sub>1</sub> Bi <sub>2</sub> and S <sub>2</sub> Ce <sub>1</sub> Bi <sub>2</sub> . Physical Review B, 2015, 91, .	3.2	16
61	Momentum dependence of the superconducting gap and in-gap states in MgB <sub>2</sub> multiband superconductor. Physical Review B, 2015, 91, .	3.2	20
62	On the Structure and Stability of BaAl <sub>4</sub> Type Ordered Derivatives in the SrAuSn System for the 600 Å°C Section. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 375-382.	1.2	3
63	Oxygen trapped by rare earth tetrahedral clusters in Nd <sub>4</sub> FeOS <sub>6</sub> : Crystal structure, electronic structure, and magnetic properties. Journal of Solid State Chemistry, 2015, 229, 41-48.	2.9	6
64	Origin of the spin reorientation transitions in (Fe <sub>1-x</sub> Co <sub>x</sub> ) <sub>2</sub> B alloys. Applied Physics Letters, 2015, 106, .	3.3	25
65	Upper critical field of K <sub>1</sub> Fe <sub>2</sub> As <sub>2</sub> pressure: A test for the change in the superconducting gap structure. Physical Review B, 2014, 89, .	3.2	16
66	Thermodynamic and transport properties of single crystalline RCo <sub>2</sub> Ge <sub>2</sub> (R=Y, La-Nd, Sm-Tm). Journal of Magnetism and Magnetic Materials, 2014, 358-359, 212-227.	2.3	19
67	Giant magnetic anisotropy and tunnelling of the magnetization in Li <sub>2</sub> (Li <sup>1-x</sup> Fex)N. Nature Communications, 2014, 5, 3333.	12.8	60
68	Suppression of ferromagnetism in the La(V <sub>1-x</sub> Cr <sub>x</sub> ) <sub>3</sub> Sb <sub>3</sub> system. Philosophical Magazine, 2014, 94, 1277-1300.	1.6	7
69	Polarized Neutron on URu <sub>2</sub> Si <sub>2</sub> . Physics Procedia, 2013, 42, 4-9.	1.2	2
70	Suppression of ferromagnetism in the LaV <sub>1-x</sub> Cr <sub>x</sub> Ge system. Physical Review B, 2013, 88, .	3.2	30
71	Anisotropic transport and magnetic properties and magnetic-field tuned states of CeZn <sub>11</sub> . Physical Review B, 2013, 88, .	3.2	9
72	Electrical resistivity study of CeZn <sub>11</sub> : Magnetic field and pressure phase diagram up to 5 GPa. Physical Review B, 2013, 88, .	3.2	4

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73	Thermoelectricity of the ferromagnetic superconductor UCoGe. Physical Review B, 2012, 85, .	3.2	20
74	Field-Induced Phenomena in Ferromagnetic Superconductors UCoGe and URhGe. Journal of the Physical Society of Japan, 2012, 81, SB002.	1.6	4
75	Superconducting phase in UGe <sub>2</sub> by AC calorimetry. Journal of Physics: Conference Series, 2012, 400, 022124.	0.4	0
76	Details of Sample Dependence and Transport Properties of URu <sub>2</sub> Si <sub>2</sub> . Journal of the Physical Society of Japan, 2011, 80, 114710.	1.6	46
77	Evolution toward Quantum Critical End Point in UGe <sub>2</sub> . Journal of the Physical Society of Japan, 2011, 80, 083703.	1.6	73
78	Trends in Heavy Fermion Matter. Journal of Physics: Conference Series, 2011, 273, 012001.	0.4	13
79	Superconductivity Reinforced by Magnetic Field and the Magnetic Instability in Uranium Ferromagnets. Journal of the Physical Society of Japan, 2011, 80, SA008.	1.6	40
80	Magnetic field evolution of critical end point in UGe <sub>2</sub> . Journal of Physics: Conference Series, 2011, 273, 012017.	0.4	8
81	First Observation of Quantum Oscillations in the Ferromagnetic Superconductor UCoGe. Journal of the Physical Society of Japan, 2011, 80, 013705.	1.6	32
82	Ferromagnetic Quantum Critical Endpoint in UCoAl. Journal of the Physical Society of Japan, 2011, 80, 094711.	1.6	89
83	Properties of ferromagnetic superconductors. Comptes Rendus Physique, 2011, 12, 573-583.	0.9	39
84	Magnetic properties of URu <sub>2</sub> Si <sub>2</sub> under uniaxial stress by neutron scattering. Physical Review B, 2011, 84, 014407.	3.2	27
85	Inelastic contribution of the resistivity in the hidden order in URu <sub>2</sub> Si <sub>2</sub> . Journal of Physics: Conference Series, 2011, 273, 012031.	3.2	19
86	Inelastic contribution of the resistivity in the hidden order in URu <sub>2</sub> Si <sub>2</sub> . Journal of Physics: Conference Series, 2011, 273, 012031.	0.4	0
87	Suppression of hidden order in URu <sub>2</sub> Si <sub>2</sub> under pressure and restoration in magnetic field. Journal of Physics: Conference Series, 2010, 251, 012001.	0.4	5
88	Mass enhancement and reentrant ground state under magnetic field in heavy fermion superconductors. Journal of Physics: Conference Series, 2010, 200, 012122.	0.4	1
89	Observation of the J <sub>1</sub> -sheet of the Fermi surface of YbRh <sub>2</sub> Si <sub>2</sub> . Physica Status Solidi (B): Basic Research, 2010, 247, 549-552.	1.5	16
90	Temperature Dependence of Energy Gap in the Superconducting State in URu <sub>2</sub> Si <sub>2</sub> . Journal of the Physical Society of Japan, 2010, 79, 094706.	1.6	3

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91	Similarity of the Fermi Surface in the Hidden Order State and in the Antiferromagnetic State of $URu_2Si_2$ . Physical Review Letters, 2010, 105, 216409.	7.8	118
92	Tricritical Point and Wing Structure in the Itinerant Ferromagnet $UGe_2$ . Physical Review Letters, 2010, 105, 217201.	7.8	135
93	Precise Study of the Resonance at $Q=(1,0,0)$ in $URu_2Si_2$ . Journal of the Physical Society of Japan, 2010, 79, 064719.	1.6	59
94	Field re-entrant hidden-order phase under pressure in $URu_2Si_2$ . Journal of Physics Condensed Matter, 2010, 22, 164205.	1.8	24
95	Two magnetic Grüneisen parameters in the ferromagnetic superconductor $UGe_2$ . Physical Review B, 2009, 80, .	3.2	29
96	Field Reentrance of the Hidden Order State of $URu_2Si_2$ under Pressure. Journal of the Physical Society of Japan, 2009, 78, 053701.	1.6	36
97	Extremely Large and Anisotropic Upper Critical Field and the Ferromagnetic Instability in $UCoGe$ . Journal of the Physical Society of Japan, 2009, 78, 113709.	1.6	136
98	Signature of hidden order in heavy fermion superconductor $URu_2Si_2$ . Resonance at the wave vector $Q$ . Physical Review B, 2008, 78, .	3.2	107