Ali Yazdani

List of Publications by Year
in descending order

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97 papers	14,303 citations	41627 51 h-index	39744 98 g-index
102 all docs	102 docs citations	102 times ranked	11917 citing authors

#	Article	IF	Citations
1	Observation of Majorana fermions in ferromagnetic atomic chains on a superconductor. Science, 2014, 346, 602-607.	6.0	1,581
2	Topological surface states protected from backscattering by chiral spin texture. Nature, 2009, 460, 1106-1109.	13.7	910
3	Higher-order topology in bismuth. Nature Physics, 2018, 14, 918-924.	6.5	590
4	Proposal for realizing Majorana fermions in chains of magnetic atoms on a superconductor. Physical Review B, 2013, 88, .	1.1	570
5	Ubiquitous Interplay Between Charge Ordering and High-Temperature Superconductivity in Cuprates. Science, 2014, 343, 393-396.	6.0	506
6	Local Ordering in the Pseudogap State of the High-Tc Superconductor Bi2Sr2CaCu2O8+Â. Science, 2004, 303, 1995-1998.	6.0	465
7	Spectroscopic signatures of many-body correlations in magic-angle twisted bilayer graphene. Nature, 2019, 572, 101-105.	13.7	459
8	Probing the Local Effects of Magnetic Impurities on Superconductivity. Science, 1997, 275, 1767-1770.	6.0	447
9	Landau quantization and quasiparticle interference in the three-dimensional DiracÂsemimetal Cd3As2. Nature Materials, 2014, 13, 851-856.	13.3	421
10	Topological Superconductivity and Majorana Fermions in RKKY Systems. Physical Review Letters, 2013, 111, 186805.	2.9	416
11	Visualizing pair formation on the atomic scale in the high-Tc superconductor Bi2Sr2CaCu2O8+Î´. Nature, 2007, 447, 569-572.	13.7	414
12	Mapping the One-Dimensional Electronic States of Nanotube Peapod Structures. Science, 2002, 295, 828-831.	6.0	364
13	Superconducting-Insulating Transition in Two-Dimensionala-MoGe Thin Films. Physical Review Letters, 1995, 74, 3037-3040.	2.9	331
14	One-dimensional topological edge states of bismuth bilayers. Nature Physics, 2014, 10, 664-669.	6.5	320
15	Spatial fluctuations of helical Dirac fermions on the surface of topological insulators. Nature Physics, 2011, 7, 939-943.	6.5	283
16	Cascade of electronic transitions in magic-angle twisted bilayer graphene. Nature, 2020, 582, 198-202.	13.7	282
17	Atom-by-atom substitution of Mn in GaAs and visualization of their hole-mediated interactions. Nature, 2006, 442, 436-439.	13.7	266
18	Strongly correlated Chern insulators in magic-angle twisted bilayer graphene. Nature, 2020, 588, 610-615.	13.7	262

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19	The marvels of moirÃ© materials. Nature Reviews Materials, 2021, 6, 201-206.	23.3	262
20	Off-Resonance Conduction Through Atomic Wires. Science, 1996, 272, 1921-1924.	6.0	212
21	Visualizing Critical Correlations Near the Metal-Insulator Transition in Ga ₁₋ _x Mn _x As. Science, 2010, 327, 665-669.	6.0	212
22	Fluctuating stripes at the onset of the pseudogap in the high-Tc superconductor Bi2Sr2CaCu2O8+x. Nature, 2010, 468, 677-680.	13.7	210
23	Transmission of topological surface states through surface barriers. Nature, 2010, 466, 343-346.	13.7	193
24	The Crystal and Electronic Structures of Cd₃As₂, the Three-Dimensional Electronic Analogue of Graphene. Inorganic Chemistry, 2014, 53, 4062-4067.	1.9	193
25	Distinguishing a Majorana zero mode using spin-resolved measurements. Science, 2017, 358, 772-776.	6.0	191
26	Electronic Origin of the Inhomogeneous Pairing Interaction in the High- T _c Superconductor Bi ₂ Sr ₂ CaCu ₂ O _{8+Î´}. Science, 2008, 320, 196-201.	6.0	186
27	High-resolution studies of the Majorana atomic chain platform. Nature Physics, 2017, 13, 286-291.	6.5	180
28	Observation of Quantum Dissipation in the Vortex State of a Highly Disordered Superconducting Thin Film. Physical Review Letters, 1996, 76, 1529-1532.	2.9	178
29	Visualizing the formation of the Kondo lattice and the hidden order in URu ₂ Si ₂. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10383-10388.	3.3	176
30	Visualizing heavy fermions emerging in a quantum critical Kondo lattice. Nature, 2012, 486, 201-206.	13.7	176
31	Visualizing nodal heavy fermion superconductivity in CeCoIn5. Nature Physics, 2013, 9, 474-479.	6.5	174
32	Impurity-Induced Bound Excitations on the Surface ofBi2Sr2CaCu2O8. Physical Review Letters, 1999, 83, 176-179.	2.9	163
33	Quasiparticle interference of the Fermi arcs and surface-bulk connectivity of a Weyl semimetal. Science, 2016, 351, 1184-1187.	6.0	156
34	Pair Density Wave in the Pseudogap State of High Temperature Superconductors. Physical Review Letters, 2004, 93, 187002.	2.9	152
35	Evidence for unconventional superconductivity in twisted bilayer graphene. Nature, 2021, 600, 240-245.	13.7	134
36	Interplay between ferromagnetism, surface states, and quantum corrections in a magnetically doped topological insulator. Physical Review B, 2012, 86, .	1.1	133

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37	Observation of a Majorana zero mode in a topologically protected edge channel. Science, 2019, 364, 1255-1259.	6.0	127
38	Twisted bilayer graphene. IV. Exact insulator ground states and phase diagram. Physical Review B, 2021, 103, .	1.1	123
39	Unexpected features of branched flow through high-mobility two-dimensional electron gases. Nature Physics, 2007, 3, 841-845.	6.5	115
40	Extending Universal Nodal Excitations Optimizes Superconductivity in Bi ₂ Sr ₂ CaCu ₂ O _{8+Î´}. Science, 2009, 324, 1689-1693.	6.0	107
41	Layer-dependent quantum cooperation of electron and hole states in the anomalous semimetal WTe2. Nature Communications, 2016, 7, 10847.	5.8	96
42	Sn-doped Bi1.1Sb0.9Te2S bulk crystal topological insulator with excellent properties. Nature Communications, 2016, 7, 11456.	5.8	94
43	Polytypism, polymorphism, and superconductivity in TaSe ₂ _{â^'x} Te _x. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1174-80.	3.3	90
44	High mobility in a van der Waals layered antiferromagnetic metal. Science Advances, 2020, 6, eaay6407.	4.7	85
45	Observation of a nematic quantum Hall liquid on the surface of bismuth. Science, 2016, 354, 316-321.	6.0	72
46	Evidence for a monolayer excitonic insulator. Nature Physics, 2022, 18, 87-93.	6.5	70
47	Defects and high bulk resistivities in the Bi-rich tetradymite topological insulator Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Te<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Se. Physical Review B, 2012, 86, .	1.1	68
48	Catalogue of flat-band stoichiometric materials. Nature, 2022, 603, 824-828.	13.7	65
49	Manipulating Majorana zero modes on atomic rings with an external magnetic field. Nature Communications, 2016, 7, 10395.	5.8	59
50	Large discrete jumps observed in the transition between Chern states in a ferromagnetic topological insulator. Science Advances, 2016, 2, e1600167.	4.7	59
51	Visualizing broken symmetry and topological defects in a quantum Hall ferromagnet. Science, 2022, 375, 321-326.	6.0	55
52	Universal signatures of Fermi arcs in quasiparticle interference on the surface of Weyl semimetals. Physical Review B, 2016, 93, .	1.1	54
53	Spectroscopic Imaging of Strongly Correlated Electronic States. Annual Review of Condensed Matter Physics, 2016, 7, 11-33.	5.2	47
54	Observation of Kosterlitz-Thouless-type melting of the disordered vortex lattice in thin films ofa-MoGe. Physical Review Letters, 1993, 70, 505-508.	2.9	45

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55	Scanning Josephson spectroscopy on the atomic scale. Physical Review B, 2016, 93, .	1.1	44
56	Design and performance of an ultra-high vacuum scanning tunneling microscope operating at dilution refrigerator temperatures and high magnetic fields. Review of Scientific Instruments, 2013, 84, 103903.	0.6	43
57	Detecting and distinguishing Majorana zero modes with the scanning tunnelling microscope. Nature Reviews Physics, 2021, 3, 541-554.	11.9	40
58	Low-Energy Quasiparticle States near Extended Scatterers ind-Wave Superconductors and Their Connection with SUSY Quantum Mechanics. Physical Review Letters, 1999, 83, 5571-5574.	2.9	37
59	Measurements of the Magnetic Field Tuned Conductivity of Disordered Two-Dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Mo</mml:mi><mml:mn>43</mml:mn></mml:msub><mml:msub><mml:mi>Ge</mml:mi><mml:mi><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>InO</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:math>Superconducting Films: Evidence for a Universal Minimum Superfluid Response. Physical Review Letters, 2013, 110, 037002.	2.9	32
60	Spectroscopy of a tunable moirÃ© system with a correlated and topological flat band. Nature Communications, 2021, 12, 2732.	5.8	30
61	Mapping the wave function of transition metal acceptor states in the GaAs surface. Physical Review B, 2009, 80, .	1.1	29
62	Nanoscale Proximity Effect in the High-Temperature Superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mn mathvariant="bold">O</mml:mi><mml:mrow><mml:mn>8</mml:mn><mml:mo>+</mml:mo><mml:mi>Î´</mml:mi></mml:mrow></mm a Scanning Tunneling Microscope. Physical Review Letters, 2010, 104, 117001.	2.9	29
63	Tuning interactions between spins in a superconductor. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	28
64	Majorana spin in magnetic atomic chain systems. Physical Review B, 2018, 97, .	1.1	27
65	Visualizing pair formation on the atomic scale and the search for the mechanism of superconductivity in high-T_ccuprates. Journal of Physics Condensed Matter, 2009, 21, 164214.	0.7	26
66	Up close and personal to atoms. Nature, 1999, 401, 227-230.	13.7	25
67	Detection of electronic nematicity using scanning tunneling microscopy. Physical Review B, 2013, 87, .	1.1	25
68	Resonant states and order-parameter suppression near pointlike impurities ind-wave superconductors. Physical Review B, 1999, 60, 7517-7522.	1.1	23
69	Imaging electronic states on topological semimetals using scanning tunneling microscopy. New Journal of Physics, 2016, 18, 105003.	1.2	23
70	Imaging Anyons with Scanning Tunneling Microscopy. Physical Review X, 2018, 8, .	2.8	23
71	A modular ultra-high vacuum millikelvin scanning tunneling microscope. Review of Scientific Instruments, 2020, 91, 023703.	0.6	21
72	Spatial Structure of a Single Mn Impurity State on GaAs (110) Surface. Journal of Superconductivity and Novel Magnetism, 2005, 18, 23-28.	0.5	20

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73	Interacting multi-channel topological boundary modes in a quantum Hall valley system. Nature, 2019, 566, 363-367.	13.7	19
74	Watching an atom tunnel. Nature, 2001, 409, 471-472.	13.7	13
75	Visualizing heavy fermion confinement and Pauli-limited superconductivity in layered CeCoIn5. Nature Communications, 2018, 9, 549.	5.8	13
76	Scattering from incipient stripe order in the high-temperature superconductor Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>CaCu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	1.1	12
77	Visualizing Heavy Fermion Formation and their Unconventional Superconductivity in f-Electron Materials. Journal of the Physical Society of Japan, 2014, 83, 061008.	0.7	12
78	Observation of backscattering induced by magnetism in a topological edge state. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16214-16218.	3.3	12
79	Ferroelectric quantum Hall phase revealed by visualizing Landau level wavefunction interference. Nature Physics, 2018, 14, 796-800.	6.5	11
80	Competition between pinning and melting in the two-dimensional vortex lattice. Physical Review B, 1994, 50, 16117-16120.	1.1	10
81	Magic, symmetry, and twisted matter. Science, 2021, 371, 1098-1099.	6.0	9
82	Studies of two-dimensional MoGe superconductors in a magnetic field. Physica B: Condensed Matter, 1994, 197, 530-539.	1.3	8
83	Visualizing Majorana fermions in a chain of magnetic atoms on a superconductor. Physica Scripta, 2015, T164, 014012.	1.2	7
84	Conjuring Majorana with synthetic magnetism. Nature Materials, 2019, 18, 1036-1037.	13.3	7
85	Probingd-wave pairing correlations in the pseudogap regime of the cuprate superconductors via low-energy states near impurities. Physical Review B, 2001, 64, .	1.1	6
86	Lean and mean superconductivity. Nature Physics, 2006, 2, 151-152.	6.5	6
87	Mapping of the formation of the pairing gap in. Journal of Physics and Chemistry of Solids, 2008, 69, 3034-3038.	1.9	5
88	Andreev interferometry as a probe of superconducting phase correlations in the pseudogap regime of the cuprates. Physical Review B, 2000, 62, 4105-4113.	1.1	4
89	Probing the electronic structure of nanotube peapods with the scanning tunneling microscope. Applied Physics A: Materials Science and Processing, 2003, 76, 469-474.	1.1	4
90	Visualizing Topological Surface States and their Novel Properties using Scanning Tunneling Microscopy and Spectroscopy. Contemporary Concepts of Condensed Matter Science, 2013, , 175-198.	0.5	4

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91	Quasi-particle interference of heavy fermions in resonant x-ray scattering. Science Advances, 2016, 2, e1601086.	4.7	4
92	Quantum conductors in a plane. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 9983-9984.	3.3	2
93	Detecting incipient stripe order in the high-temperature superconductor Bi2Sr2CaCu2O8+x. Physica C: Superconductivity and Its Applications, 2012, 481, 153-160.	0.6	2
94	Visualizing broken symmetry and topological defects in a quantum Hall ferromagnet. Science, 2021, , eabm3770.	6.0	1
95	Atomic-scale studies of impurities in superconductors with a scanning tunneling microscope. Applied Physics A: Materials Science and Processing, 2001, 72, S257-S261.	1.1	0
96	Atomic Scale Imaging and Spectroscopy of Fullerene Peapods. AIP Conference Proceedings, 2002, , .	0.3	0
97	Visualizing Critical Correlations Near the Metalâ€“Insulator Transition in Ga1â^'xMnxAs. , 2012, , 244-255.		0