Johannes Zaanen

List of Publications by Citations

77 papers	9,313 citations	32 h-index	90 g-index
90 ext. papers	10,451 ext. citations	13 avg, IF	6.24 L-index

#	Paper	IF	Citations
77	Band theory and Mott insulators: Hubbard U instead of Stoner I. *Physical Review B*, **1991**, 44, 943-954	3.3	5028
76	Charged magnetic domain lines and the magnetism of high-Tc oxides. *Physical Review B*, **1989**, 40, 7391-7394	3.3	863
75	String theory, quantum phase transitions, and the emergent Fermi liquid. *Science*, **2009**, 325, 439-44	33.3	349
74	The space group classification of topological band-insulators. *Nature Physics*, **2013**, 9, 98-102	16.2	342
73	Canonical perturbation theory and the two-band model for high-Tc superconductors. *Physical Review B*, **1988**, 37, 9423-9438	3.3	241
72	Quantum Melting of Magnetic Order due to Orbital Fluctuations. *Physical Review Letters*, **1997**, 78, 2799-2802	7.4	239
71	Holographic Duality in Condensed Matter Physics **2015**,		210
70	Holographic duality and the resistivity of strange metals. *Physical Review B*, **2014**, 89,	3.3	138
69	Impurity-bound states and Green's function zeros as local signatures of topology. *Physical Review B*, **2015**, 92,	3.3	103
68	Spin polarons in the t-tRJ model. *Physical Review B*, **1995**, 52, 4597-4606	3.3	82
67	Universal probes of two-dimensional topological insulators: dislocation and flux. *Physical Review Letters*, **2012**, 108, 106403	7.4	72
66	Quantum melting of magnetic long-range order near orbital degeneracy: Classical phases and Gaussian fluctuations. *Physical Review B*, **2000**, 61, 6257-6287	3.3	72
65	Mean-field theories of the two-band model and the magnetism in high-Tc oxides. *Physical Review B*, **1989**, 39, 9175-9191	3.3	67
64	Interplay between electronic topology and crystal symmetry: Dislocation-line modes in topological band insulators. *Physical Review B*, **2014**, 90,	3.3	60
63	Dual gauge field theory of quantum liquid crystals in two dimensions. *Physics Reports*, **2017**, 683, 1-110	27.7	58
62	Quantum disorder versus order-out-of-disorder in the Kugel - Khomskii model. *Journal of Physics Condensed Matter*, **1998**, 10, L555-L561	1.8	47
61	Planckian dissipation, minimal viscosity and the transport in cuprate strange metals. *SciPost Physics*, **2019**, 6,	6.1	47

60	Zhang-Rice localization, quasiparticle dispersions, and the photoemission of NiO. *Physical Review Letters*, **1994**, 72, 2600-2603	7.4	46
59	Lattice potentials and fermions in holographic non Fermi-liquids: hybridizing local quantum criticality. *Journal of High Energy Physics*, **2012**, 2012, 1	5.4	43
58	Electromagnetic properties of viscous charged fluids. *Physical Review B*, **2014**, 90,	3.3	42
57	Parallel transport of electrons in graphene parallels gravity. *Physical Review B*, **2010**, 82,	3.3	39
56	An intrinsic limit to quantum coherence due to spontaneous symmetry breaking. *Physical Review Letters*, **2005**, 94, 230401	7.4	39
55	Doping the holographic Mott insulator. *Nature Physics*, **2018**, 14, 1049-1055	16.2	37
54	Intertwined Order and Holography: The Case of Parity Breaking Pair Density Waves. *Physical Review Letters*, **2017**, 119, 181601	7.4	37
53	Stability of quantum critical points in the presence of competing orders. *Physical Review B*, **2010**, 82,	3.3	36
52	Charged domain walls as quantum strings on a lattice. *Physical Review B*, **1998**, 58, 6963-6981	3.3	36
51	Quantum magnetism in the stripe phase: Bond versus site order. *Physical Review B*, **1999**, 59, 115-118	3.3	34
50	Incoherent strange metal sharply bounded by a critical doping in Bi2212. *Science*, **2019**, 366, 1099-1102	33.3	34
49	BCS superconductivity in quantum critical metals. *Physical Review B*, **2009**, 80,	3.3	33
48	Solid-state NMR spectroscopy to probe photoactivation in canonical phytochromes. *Photochemistry and Photobiology*, **2013**, 89, 259-73	3.6	32
47	Photo-CIDNP solid-state NMR on photosystems I and II:what makes P680 special?. *Photosynthesis Research*, **2005**, 84, 303-8	3.7	31
46	Relation between decoherence and spontaneous symmetry breaking in many-particle qubits. *Physical Review B*, **2006**, 74,	3.3	27
45	Constructing the AdS dual of a Fermi liquid: AdS black holes with Dirac hair. *Journal of High Energy Physics*, **2011**, 2011, 1	5.4	26
44	Fluctuations in finite density holographic quantum liquids. *Journal of High Energy Physics*, **2012**, 2012, 1	5.4	23
43	Ground state phase diagram of the doped Hubbard model on the four-leg cylinder. *Physical Review Research*, **2020**, 2,	3.9	23

42	Condensed-matter physics: Superconducting electrons go missing. *Nature*, **2016**, 536, 282-3	50.4	21
41	Self-organized pseudo-graphene on grain boundaries in topological band insulators. *Physical Review B*, **2016**, 93,	3.3	21
40	Dual gauge field theory of quantum liquid crystals in three dimensions. *Physical Review B*, **2017**, 96,	3.3	20
39	Quantum critical electron systems: the uncharted sign worlds. *Science*, **2008**, 319, 1205-7	33.3	20
38	PHYSICS. Electrons go with the flow in exotic material systems. *Science*, **2016**, 351, 1026-7	33.3	19
37	Classification of point-group-symmetric orientational ordering tensors. *Physical Review E*, **2016**, 94, 022701	2.4	18
36	Electronic Structure Trends Across the Rare-Earth Series in Superconducting Infinite-Layer Nickelates. *Physical Review X*, **2021**, 11,	9.1	18
35	Bilayer Excitons in Two-Dimensional Nanostructures for Greatly Enhanced Thermoelectric Efficiency. *Physical Review Applied*, **2014**, 2,	4.3	16
34	Bose-Fermi competition in holographic metals. *Journal of High Energy Physics*, **2013**, 2013, 1	5.4	15
33	Physics. Fast electrons tie quantum knots. *Science*, **2009**, 323, 888-90	33.3	15
32	Exciton condensation in strongly correlated electron bilayers. *Physical Review B*, **2013**, 88,	3.3	14
31	Towards an experimental test of gravity-induced quantum state reduction. *Philosophical Magazine*, **2008**, 88, 1005-1026	1.6	14
30	Stripe fractionalization: the quantum spin nematic and the Abrikosov lattice. *Physica Status Solidi (B): Basic Research*, **2003**, 236, 332-339	1.3	14
29	Spin-orbit coupling-induced magnetic phase in the d-density-wave phase of La(2-x)Ba(x)CuO4 superconductors. *Physical Review Letters*, **2005**, 95, 247007	7.4	13
28	Charge modulation as fingerprints of phase-string triggered interference. *Physical Review B*, **2015**, 92,	3.3	12
27	The emergence of gauge invariance: The stay-at-home gauge versus local–global duality. *Annals of Physics*, **2012**, 327, 1146-1161	2.5	12
26	Determinant quantum Monte Carlo study of exciton condensation in the bilayer Hubbard model. *Physical Review B*, **2013**, 88,	3.3	12
25	Generalized Liquid Crystals: Giant Fluctuations and the Vestigial Chiral Order of I, O, and T Matter. *Physical Review X*, **2016**, 6,	9.1	11

24	Anomalous attenuation of plasmons in strange metals and holography. *Physical Review B*, **2019**, 99,	3.3	10
23	Spectral probes of the holographic Fermi ground state: Dialing between the electron star and AdS Dirac hair. *Physical Review D*, **2011**, 84,	4.9	10
22	Enhancement of spin propagation due to interlayer exciton condensation. *Physical Review B*, **2013**, 88,	3.3	9
21	Classification of nematic order in 2 + 1 dimensions: Dislocation melting and O(2)/ZN lattice gauge theory. *Physical Review B*, **2015**, 91,	3.3	9
20	Origin of band and localized electron states in photoemission of NiO. *Physical Review B*, **2000**, 61, 13573-13587	3.3	9
19	Hierarchy of orientational phases and axial anisotropies in the gauge theoretical description of generalized nematic liquid crystals. *Physical Review E*, **2017**, 95, 022704	2.4	7
18	Isolated zeros destroy Fermi surface in holographic models with a lattice. *Journal of High Energy Physics*, **2020**, 2020, 1	5.4	7
17	Deconfining the rotational Goldstone mode: The superconducting quantum liquid crystal in (2+1) dimensions. *Physical Review B*, **2013**, 88,	3.3	7
16	Straining topological insulators as a way to detect Majorana fermions. *Physical Review B*, **2011**, 84,	3.3	7
15	Prediction of quantization of magnetic flux in double-layer exciton superfluids. *Physical Review B*, **2011**, 83,	3.3	7
14	Revisiting quasiparticle scattering interference in high-temperature superconductors: The problem of narrow peaks. *Physical Review B*, **2017**, 96,	3.3	6
13	Physics. Watching rush hour in the world of electrons. *Science*, **2007**, 315, 1372-3	33.3	6
12	Quantum corrected phase diagram of holographic fermions. *Journal of High Energy Physics*, **2013**, 2013, 1	5.4	5
11	Electrodynamics of Abrikosov vortices: the field theoretical formulation. *Frontiers of Physics*, **2011**, 6, 357-369	3.7	4
10	Type-II Bose-Mott insulators. *Physical Review B*, **2012**, 86,	3.3	3
9	Self-energies and quasiparticle scattering interference. *Physical Review B*, **2018**, 98,	3.3	3
8	High-temperature superconductivity: electron mirages in an iron salt. *Nature*, **2014**, 515, 205-6	50.4	2
7	Quantum Thermalization and the Expansion of Atomic Clouds. *Scientific Reports*, **2017**, 7, 6118	4.9	2

6	Journal club. A theoretical physicist journeys to a hairy black hole's horizon. *Nature*, **2009**, 462, 15	50.4	2
5	Magnetic ordering phenomena and dynamic fluctuations in cuprate superconductors and insulating nickelates. *Handbook of Magnetic Materials*, **2003**, 15, 379-496	1.3	2
4	Isolated zeros in the spectral function as signature of a quantum continuum. *Physical Review B*, **2019**, 99,	3.3	1
3	Statistics, condensation, and the Anderson-Higgs mechanism: Worldline path integral view. *Physical Review B*, **2008**, 78,	3.3	1
2	Unconventional spectral signature of T in a pure d-wave superconductor.. *Nature*, **2022**, 601, 562-567	50.4	1
1	BCS instabilities of electron stars to holographic superconductors. *Journal of High Energy Physics*, **2014**, 2014, 1	5.4	