Amir Yacoby

List of Publications by Year
in descending order

88 papers	8,392 citations	41344 49 h-index	51608 86 g-index
90 all docs	90 docs citations	90 times ranked	7731 citing authors

#	Article	IF	Citations
1	Dephasing time of GaAs electron-spin qubits coupled to a nuclear bath exceeding 200â€‰Î¼s. Nature Physics, 2011, 7, 109-113.	16.7	501
2	Measurement of the conductance of single conjugated molecules. Nature, 2005, 436, 677-680.	27.8	379
3	Probing condensed matter physics with magnetometry based on nitrogen-vacancy centres in diamond. Nature Reviews Materials, 2018, 3, .	48.7	376
4	Universal quantum control of two-electron spin quantum bits using dynamic nuclear polarization. Nature Physics, 2009, 5, 903-908.	16.7	350
5	Induced superconductivity in the quantum spin Hall edge. Nature Physics, 2014, 10, 638-643.	16.7	292
6	Broken-symmetry states and divergent resistance in suspended bilayer graphene. Nature Physics, 2009, 5, 889-893.	16.7	291
7	Enhancing the Coherence of a Spin Qubit by Operating it as a Feedback Loop That Controls its Nuclear Spin Bath. Physical Review Letters, 2010, 105, 216803.	7.8	225
8	Topological superconductivity in a phase-controlled Josephson junction. Nature, 2019, 569, 93-98.	27.8	225
9	Nanoscale NMR spectroscopy and imaging of multiple nuclear species. Nature Nanotechnology, 2015, 10, 129-134.	31.5	215
10	Imaging viscous flow of the Dirac fluid in graphene. Nature, 2020, 583, 537-541.	27.8	213
11	Electron liquids and solids in one dimension. Nature, 2010, 464, 209-216.	27.8	204
12	Control and local measurement of the spin chemical potential in a magnetic insulator. Science, 2017, 357, 195-198.	12.6	192
13	Integrated Diamond Networks for Quantum Nanophotonics. Nano Letters, 2012, 12, 1578-1582.	9.1	183
14	High-fidelity entangling gate for double-quantum-dot spin qubits. Npj Quantum Information, 2017, 3, .	6.7	174
15	Enhanced single-photon emission from a diamondâ€“silver aperture. Nature Photonics, 2011, 5, 738-743.	31.4	171
16	Single-cell magnetic imaging using a quantum diamond microscope. Nature Methods, 2015, 12, 736-738.	19.0	161
17	Fractional Chern insulators in magic-angle twisted bilayer graphene. Nature, 2021, 600, 439-443.	27.8	158
18	Charge fractionalization in quantum wires. Nature Physics, 2008, 4, 116-119.	16.7	157

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19	Unconventional Sequence of Fractional Quantum Hall States in Suspended Graphene. Science, 2012, 337, 1196-1199.	12.6	155
20	Superfluid spin transport through antiferromagnetic insulators. Physical Review B, 2014, 90, .	3.2	155
21	Nanoscale magnetometry with NV centers in diamond. MRS Bulletin, 2013, 38, 155-161.	3.5	153
22	Topological Superconductivity in a Planar Josephson Junction. Physical Review X, 2017, 7, .	8.9	149
23	The Magnetic Genome of Two-Dimensional van der Waals Materials. ACS Nano, 2022, 16, 6960-7079.	14.6	149
24	Self-Aligned Nanoscale SQUID on a Tip. Nano Letters, 2010, 10, 1046-1049.	9.1	141
25	Nanometre-scale probing of spin waves using single electron spins. Nature Communications, 2015, 6, 7886.	12.8	136
26	Inducing superconducting correlation in quantum Hall edge states. Nature Physics, 2017, 13, 693-698.	16.7	132
27	Localization of Fractionally Charged Quasi-Particles. Science, 2004, 305, 980-983.	12.6	120
28	Superconductivity in a quintuple-layer square-planar nickelate. Nature Materials, 2022, 21, 160-164.	27.5	117
29	Local thermometry of neutral modes on the quantum Hall edge. Nature Physics, 2012, 8, 676-681.	16.7	113
30	Kramers pairs of Majorana fermions and parafermions in fractional topological insulators. Physical Review B, 2014, 90, .	3.2	111
31	NMR technique for determining the depth of shallow nitrogen-vacancy centers in diamond. Physical Review B, 2016, 93, .	3.2	107
32	Fractional Quantum Hall Phase Transitions and Four-Flux States in Graphene. Physical Review Letters, 2013, 111, 076802.	7.8	90
33	Local charge of the Î½ = 5/2 fractional quantum Hall state. Nature, 2011, 469, 185-188.	27.8	89
34	Interacting electrons in one dimension beyond the Luttinger-liquid limit. Nature Physics, 2010, 6, 489-493.	16.7	86
35	Steady States of a Microwave-Irradiated Quantum-Hall Gas. Physical Review Letters, 2005, 94, 196801.	7.8	81
36	Coherent, Mechanical Control of a Single Electronic Spin. Nano Letters, 2012, 12, 3920-3924.	9.1	81

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37	Unconventional sequence of correlated Chern insulators in magic-angle twisted bilayer graphene. Nature Physics, 2021, 17, 1210-1215.	16.7	78
38	Long-Distance Spin-Spin Coupling via Floating Gates. Physical Review X, 2012, 2, .	8.9	74
39	Imaging phonon-mediated hydrodynamic flow in WTe2. Nature Physics, 2021, 17, 1216-1220.	16.7	72
40	Controlled finite momentum pairing and spatially varying order parameter in proximitized HgTe quantum wells. Nature Physics, 2017, 13, 87-93.	16.7	70
41	Tri and tri again. Nature Physics, 2011, 7, 925-926.	16.7	68
42	Fabrication of nanoscale gaps in integrated circuits. Applied Physics Letters, 2002, 81, 730-732.	3.3	65
43	Mach-Zehnder interferometry using spin- and valley-polarized quantum Hall edge states in graphene. Science Advances, 2017, 3, e1700600.	10.3	64
44	Studies on electric triggering of the metal-insulator transition in VO2 thin films between 77 K and 300 K. Journal of Applied Physics, 2011, 110, .	2.5	62
45	Detecting Majorana modes in one-dimensional wires by charge sensing. Physical Review B, 2015, 91, .	3.2	62
46	Quenching of dynamic nuclear polarization by spinâ€“orbit coupling in GaAs quantum dots. Nature Communications, 2015, 6, 7682.	12.8	59
47	Fractional and integer quantum Hall effects in the zeroth Landau level in graphene. Physical Review B, 2013, 88, .	3.2	58
48	Finite-Size Effects in Tunneling between Parallel Quantum Wires. Physical Review Letters, 2002, 89, 136805.	7.8	54
49	Revealing Topological Superconductivity in Extended Quantum Spin Hall Josephson Junctions. Physical Review Letters, 2014, 113, 197001.	7.8	50
50	Nanoscale Detection of Magnon Excitations with Variable Wavevectors Through a Quantum Spin Sensor. Nano Letters, 2020, 20, 3284-3290.	9.1	50
51	Scanning diamond NV center probes compatible with conventional AFM technology. Applied Physics Letters, 2017, 111, .	3.3	48
52	Aharonovâ€“Bohm effect in graphene-based Fabryâ€“PÃ©rot quantum Hall interferometers. Nature Nanotechnology, 2021, 16, 563-569.	31.5	48
53	Graphene rests easy. Nature Nanotechnology, 2010, 5, 699-700.	31.5	46
54	Electrical generation and detection of spin waves in a quantum Hall ferromagnet. Science, 2018, 362, 229-233.	12.6	43

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55	Charge fractionalization in nonchiral Luttinger systems. Annals of Physics, 2008, 323, 3037-3058.	2.8	42
56	Crystallographic Orientation Dependent Reactive Ion Etching in Single Crystal Diamond. Advanced Materials, 2018, 30, 1705501.	21.0	41
57	Data-driven studies of magnetic two-dimensional materials. Scientific Reports, 2020, 10, 15795.	3.3	39
58	Spin Superfluidity in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi><mml:mo>=</mml:mo><mml:mn>0</mml:mn></mml:math>Quantum Hall State of Graphene. Physical Review Letters, 2016, 116, 216801.	7.8	38
59	Magnetic Field Fingerprinting of Integrated-Circuit Activity with a Quantum Diamond Microscope. Physical Review Applied, 2020, 14, .	3.8	37
60	High-energy quasiparticle injection into mesoscopic superconductors. Nature Nanotechnology, 2021, 16, 404-408.	31.5	37
61	Decoherence imaging of spin ensembles using a scanning single-electron spin in diamond. Scientific Reports, 2015, 5, 8119.	3.3	36
62	Tuning Methods for Semiconductor Spin Qubits. Physical Review Applied, 2018, 10, .	3.8	33
63	Local spin susceptibilities of low-dimensional electron systems. Physical Review B, 2013, 88, .	3.2	31
64	Tuning topological superconductivity in phase-controlled Josephson junctions with Rashba and Dresselhaus spin-orbit coupling. Physical Review B, 2019, 99, .	3.2	31
65	Microscopic manifestation of the spin phase transition at filling factor 2/3. Nature Physics, 2007, 3, 392-396.	16.7	29
66	Observation of Electron Coherence and Fabryâ€“Perot Standing Waves at a Graphene Edge. Nano Letters, 2017, 17, 7380-7386.	9.1	26
67	A magnon scattering platform. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	26
68	Readout of singlet-triplet qubits at large magnetic field gradients. Physical Review B, 2018, 98, .	3.2	25
69	Andreev Reflection in the Fractional Quantum Hall State. Physical Review X, 2022, 12, .	8.9	22
70	Nanoparticles and nanogaps: controlled positioning and fabrication. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 498-502.	2.7	20
71	Proposal for the detection of magnetic monopoles in spin ice via nanoscale magnetometry. Physical Review B, 2018, 97, .	3.2	19
72	High-efficiency resonant amplification of weak magnetic fields for single spin magnetometry at room temperature. Nature Nanotechnology, 2015, 10, 541-546.	31.5	18

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73	Vector Electrometry in a Wide-Gap-Semiconductor Device Using a Spin-Ensemble Quantum Sensor. Physical Review Applied, 2020, 14, .	3.8	17
74	Domain Patterns in the Microwave-Induced Zero-Resistance State. Journal of Statistical Physics, 2006, 125, 1093-1107.	1.2	14
75	Local compressibility measurement of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>Î½</mml:mi><mml:mrow><mml:mi>t</mml:mi><mml:mi>o</mml:mi><mml:mi> Hall state in a bilayer electron system. Physical Review B, 2013, 87, .	3.2	13
76	Phase-induced topological superconductivity in a planar heterostructure. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	13
77	Spectroscopic signatures of time-reversal symmetry breaking superconductivity. Communications Physics, 2022, 5, .	5.3	13
78	The development of microfabricated solenoids with magnetic cores for micromagnetic neural stimulation. Microsystems and Nanoengineering, 2021, 7, 91.	7.0	12
79	Nuclear spin assisted magnetic field angle sensing. Npj Quantum Information, 2021, 7, .	6.7	11
80	Thermodynamics of free and bound magnons in graphene. Nature Physics, 2022, 18, 37-41.	16.7	10
81	Many-body dispersions in interacting ballistic quantum wires. Solid State Communications, 2004, 131, 657-663.	1.9	7
82	Field-effect-induced two-dimensional electron gas utilizing modulation-doped ohmic contacts. Solid State Communications, 2014, 197, 20-24.	1.9	7
83	A cantilever torque magnetometry method for the measurement of Hall conductivity of highly resistive samples. Review of Scientific Instruments, 2020, 91, 045001.	1.3	7
84	Electron spin-flip correlations due to nuclear dynamics in driven GaAs double dots. Physical Review B, 2017, 95, .	3.2	5
85	Wide-Field Magnetic Imaging using Nitrogen-Vacancy Color Centers in Diamond. Biophysical Journal, 2013, 104, 193a.	0.5	1
86	Barometrically and Electrostatically Induced Strain in Suspended Graphene. , 2010, , .		0
87	Tunneling spectroscopy of disordered two-dimensional electron gas in the quantum Hall regime. Physical Review B, 2011, 84, .	3.2	0
88	Microstructure Effect on LaPtBi Superconductivity. Microscopy and Microanalysis, 2019, 25, 948-949.	0.4	0