Abhay Pasupathy

List of Publications by Year in Descending Order

86 papers	8,251 citations	40 h-index	90 g-index
98 ext. papers	10,085 ext. citations	15.7 avg, IF	5.66 L-index

#	Paper	IF	Citations
86	Visualizing the unusual spectral weight transfer in DyBaCuO thin film.. *Scientific Reports*, **2022**, 12, 830	4.9	0
85	Nano-spectroscopy of excitons in atomically thin transition metal dichalcogenides.. *Nature Communications*, **2022**, 13, 542	17.4	3
84	Orderly disorder in magic-angle twisted trilayer graphene.. *Science*, **2022**, 376, 193-199	33.3	8
83	Moir hematic phase in twisted double bilayer graphene. *Nature Physics*, **2022**, 18, 196-202	16.2	10
82	Visualizing Atomically-Layered Magnetism in CrSBr.. *Advanced Materials*, **2022**, e2201000	24	2
81	High carrier mobility in graphene doped using a monolayer of tungsten oxyselenide. *Nature Electronics*, **2021**, 4, 731-739	28.4	4
80	Deep Learning Analysis of Polaritonic Wave Images. *ACS Nano*, **2021**,	16.7	4
79	Nonmonotonic Temperature-Dependent Dissipation at Nonequilibrium in Atomically Thin Clean-Limit Superconductors. *Nano Letters*, **2021**, 21, 583-589	11.5	1
78	Enhanced Superconductivity in Monolayer -MoTe. *Nano Letters*, **2021**, 21, 2505-2511	11.5	14
77	Electric-field-tunable electronic nematic order in twisted double-bilayer graphene. *2D Materials*, **2021**, 8, 034005	5.9	7
76	Nano-imaging of strain-tuned stripe textures in a Mott crystal. *Npj Quantum Materials*, **2021**, 6,	5	4
75	Moir metrology of energy landscapes in van der Waals heterostructures. *Nature Communications*, **2021**, 12, 242	17.4	22
74	Intrinsic donor-bound excitons in ultraclean monolayer semiconductors. *Nature Communications*, **2021**, 12, 871	17.4	10
73	Deep moir potentials in twisted transition metal dichalcogenide bilayers. *Nature Physics*, **2021**, 17, 720-726	16.2	37
72	Moir heterostructures as a condensed-matter quantum simulator. *Nature Physics*, **2021**, 17, 155-163	16.2	66
71	Andreev Reflections in NbN/Graphene Junctions under Large Magnetic Fields. *Nano Letters*, **2021**, 21, 8229-8235	11.5	0
70	Nanoscale lattice dynamics in hexagonal boron nitride moir superlattices. *Nature Communications*, **2021**, 12, 5741	17.4	7

69	Quantum criticality in twisted transition metal dichalcogenides. *Nature*, **2021**, 597, 345-349	50.4	17
68	Moir□ess correlations in ABCA graphene. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	21
67	Correlated electronic phases in twisted bilayer transition metal dichalcogenides. *Nature Materials*, **2020**, 19, 861-866	27	197
66	Visualization of moir□superlattices. *Nature Nanotechnology*, **2020**, 15, 580-584	28.7	88
65	Tunable strain soliton networks confine electrons in van der Waals materials. *Nature Physics*, **2020**, 16, 1097-1102	16.2	19
64	Dictionary learning in Fourier-transform scanning tunneling spectroscopy. *Nature Communications*, **2020**, 11, 1081	17.4	4
63	Enabling room temperature ferromagnetism in monolayer MoS via in situ iron-doping. *Nature Communications*, **2020**, 11, 2034	17.4	46
62	Excitons in strain-induced one-dimensional moir□potentials at transition metal dichalcogenide heterojunctions. *Nature Materials*, **2020**, 19, 1068-1073	27	79
61	Imaging strain-localized excitons in nanoscale bubbles of monolayer WSe at room temperature. *Nature Nanotechnology*, **2020**, 15, 854-860	28.7	57
60	Layered Antiferromagnetism Induces Large Negative Magnetoresistance in the van der Waals Semiconductor CrSBr. *Advanced Materials*, **2020**, 32, e2003240	24	30
59	Complete Strain Mapping of Nanosheets of Tantalum Disulfide. *ACS Applied Materials & Interfaces*, **2020**, 12, 43173-43179	9.5	3
58	Atomic-Scale Characterization of Graphene p-n Junctions for Electron-Optical Applications. *ACS Nano*, **2019**, 13, 2558-2566	16.7	7
57	Approaching the Intrinsic Limit in Transition Metal Diselenides via Point Defect Control. *Nano Letters*, **2019**, 19, 4371-4379	11.5	90
56	Sensitivity of the superconducting state in thin films. *Science Advances*, **2019**, 5, eaau3826	14.3	30
55	Fragility of the dissipationless state in clean two-dimensional superconductors. *Nature Physics*, **2019**, 15, 947-953	16.2	13
54	Maximized electron interactions at the magic angle in twisted bilayer graphene. *Nature*, **2019**, 572, 95-100	50.4	351
53	Unconventional scaling of the superfluid density with the critical temperature in transition metal dichalcogenides. *Science Advances*, **2019**, 5, eaav8465	14.3	9
52	Impact of substrate induced band tail states on the electronic and optical properties of MoS2. *Applied Physics Letters*, **2019**, 115, 261603	3.4	13

51	Via Method for Lithography Free Contact and Preservation of 2D Materials. *Nano Letters*, **2018**, 18, 1416-1420	11.5	37
50	Superatomic Two-Dimensional Semiconductor. *Nano Letters*, **2018**, 18, 1483-1488	11.5	25
49	Temperature-driven topological transition in 1T′MoTe2. *Npj Quantum Materials*, **2018**, 3,	5	29
48	Infrared nanoimaging of the metal-insulator transition in the charge-density-wave van der Waals material 1T□aS2. *Physical Review B*, **2018**, 97,	3.3	7
47	Strain Engineering and Raman Spectroscopy of Monolayer Transition Metal Dichalcogenides. *Chemistry of Materials*, **2018**, 30, 5148-5155	9.6	43
46	Band structure engineering of 2D materials using patterned dielectric superlattices. *Nature Nanotechnology*, **2018**, 13, 566-571	28.7	87
45	Magnetism in semiconducting molybdenum dichalcogenides. *Science Advances*, **2018**, 4, eaat3672	14.3	56
44	Engineering the Structural and Electronic Phases of MoTe through W Substitution. *Nano Letters*, **2017**, 17, 1616-1622	11.5	99
43	Signatures of the topological s superconducting order parameter in the type-II Weyl semimetal T -MoTe. *Nature Communications*, **2017**, 8, 1082	17.4	62
42	Passivating 1T′MoTe multilayers at elevated temperatures by encapsulation. *Nanoscale*, **2017**, 9, 13910-13914	7.7	4
41	Absence of a Band Gap at the Interface of a Metal and Highly Doped Monolayer MoS. *Nano Letters*, **2017**, 17, 5962-5968	11.5	27
40	On the Global Geometry of Sphere-Constrained Sparse Blind Deconvolution **2017**,		15
39	Distinct surface and bulk charge density waves in ultrathin 1T□aS2. *Physical Review B*, **2016**, 94,	3.3	34
38	Klein tunnelling and electron trapping in nanometre-scale graphene quantum dots. *Nature Physics*, **2016**, 12, 1069-1075	16.2	103
37	Atomistic Interrogation of B-N Co-dopant Structures and Their Electronic Effects in Graphene. *ACS Nano*, **2016**, 10, 6574-84	16.7	42
36	Nature of the quantum metal in a two-dimensional crystalline superconductor. *Nature Physics*, **2016** , 12, 208-212	16.2	177
35	Mapping Periodic Lattice Distortions in Exfoliated Dichalchogenides with Atomic Resolution cryo-STEM. *Microscopy and Microanalysis*, **2016**, 22, 1550-1551	0.5	
34	Thickness and Stacking Sequence Determination of Exfoliated Dichalchogenides Using Scanning Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2016**, 22, 1456-1457	0.5	

33	Imaging chiral symmetry breaking from Kekulé bond order in graphene. *Nature Physics*, **2016**, 12, 950-958	16.2	56
32	Atomic-Scale Spectroscopy of Gated Monolayer MoS2. *Nano Letters*, **2016**, 16, 3148-54	11.5	23
31	Atomic lattice disorder in charge-density-wave phases of exfoliated dichalcogenides (1T-TaS2). *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11420-11424	11.5	62
30	Quasiparticle interference, quasiparticle interactions, and the origin of the charge density wave in 2H-NbSe2. *Physical Review Letters*, **2015**, 114, 037001	7.4	50
29	Emergent surface superconductivity in the topological insulator Sb2Te3. *Nature Communications*, **2015**, 6, 8279	17.4	40
28	Structure and control of charge density waves in two-dimensional 1T-TaS2. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 15054-9	11.5	151
27	Flicker Noise as a Probe of Electronic Interaction at Metal-Single Molecule Interfaces. *Nano Letters*, **2015**, 15, 4143-9	11.5	54
26	Experimental evidence for a Bragg glass density wave phase in a transition-metal dichalcogenide. *Physical Review Letters*, **2015**, 114, 026802	7.4	19
25	Dopant segregation in polycrystalline monolayer graphene. *Nano Letters*, **2015**, 15, 1428-36	11.5	16
24	Visualization of electron nematicity and unidirectional antiferroic fluctuations at high temperatures in NaFeAs. *Nature Physics*, **2014**, 10, 225-232	16.2	133
23	Segregation of sublattice domains in nitrogen-doped graphene. *Journal of the American Chemical Society*, **2014**, 136, 1391-7	16.4	73
22	Visualizing the charge density wave transition in 2H-NbSe2 in real space. *Physical Review B*, **2014**, 89,	3.3	110
21	Local atomic and electronic structure of boron chemical doping in monolayer graphene. *Nano Letters*, **2013**, 13, 4659-65	11.5	168
20	Substrate level control of the local doping in graphene. *Nano Letters*, **2013**, 13, 1386-92	11.5	37
19	Topography, complex refractive index, and conductivity of graphene layers measured by correlation of optical interference contrast, atomic force, and back scattered electron microscopy. *Journal of Applied Physics*, **2013**, 114, 183107	2.5	3
18	Molecular beam growth of graphene nanocrystals on dielectric substrates. *Carbon*, **2012**, 50, 4822-4829	10.4	29
17	Large physisorption strain in chemical vapor deposition of graphene on copper substrates. *Nano Letters*, **2012**, 12, 2408-13	11.5	107
16	Connecting dopant bond type with electronic structure in N-doped graphene. *Nano Letters*, **2012**, 12, 4025-31	11.5	381

15	Visualizing individual nitrogen dopants in monolayer graphene. *Science*, **2011**, 333, 999-1003	33.3	697
14	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, 10383-8	11.5	156
13	Nanoscale proximity effect in the high-temperature superconductor Bi{2}Sr{2}CaCu{2}O{8+delta} using a scanning tunneling microscope. *Physical Review Letters*, **2010**, 104, 117001	7.4	24
12	Mechanical control of spin states in spin-1 molecules and the underscreened Kondo effect. *Science*, **2010**, 328, 1370-3	33.3	343
11	Extending universal nodal excitations optimizes superconductivity in Bi2Sr2CaCu2O8+delta. *Science*, **2009**, 324, 1689-93	33.3	101
10	Electronic origin of the inhomogeneous pairing interaction in the high-Tc superconductor Bi2Sr2CaCu2O8+delta. *Science*, **2008**, 320, 196-201	33.3	169
9	Mapping of the formation of the pairing gap in. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 3034-3038	3.9	5
8	Visualizing pair formation on the atomic scale in the high-Tc superconductor Bi2Sr2CaCu2O8+delta. *Nature*, **2007**, 447, 569-72	50.4	370
7	From ballistic transport to tunneling in electromigrated ferromagnetic breakjunctions. *Nano Letters* , **2006**, 6, 123-7	11.5	49
6	Vibration-assisted electron tunneling in C140 transistors. *Nano Letters*, **2005**, 5, 203-7	11.5	175
5	Mechanically adjustable and electrically gated single-molecule transistors. *Nano Letters*, **2005**, 5, 305-8	11.5	149
4	Metal-nanoparticle single-electron transistors fabricated using electromigration. *Applied Physics Letters*, **2004**, 84, 3154-3156	3.4	127
3	The Kondo effect in the presence of ferromagnetism. *Science*, **2004**, 306, 86-9	33.3	472
2	Coulomb blockade and the Kondo effect in single-atom transistors. *Nature*, **2002**, 417, 722-5	50.4	1717
1	Magnetic anisotropy variations and nonequilibrium tunneling in a cobalt nanoparticle. *Physical Review Letters*, **2001**, 87, 226801	7.4	54