Riccardo Comin

List of Publications by Year in Descending Order

79 papers	16,768 citations	41 h-index	87 g-index
87 ext. papers	19,690 ext. citations	16.8 avg, IF	6.36 L-index

#	Paper	IF	Citations
79	Randomized probe imaging through deep k-learning.. *Optics Express*, **2022**, 30, 2247-2264	3.3	0
78	Evidence for a single-layer van der Waals multiferroic.. *Nature*, **2022**, 602, 601-605	50.4	12
77	Maskless Fourier transform holography.. *Optics Express*, **2022**, 30, 403-413	3.3	0
76	Electronic Band Tuning and Multivalley Raman Scattering in Monolayer Transition Metal Dichalcogenides at High Pressures.. *ACS Nano*, **2022**,	16.7	3
75	Sudden Collapse of Magnetic Order in Oxygen-Deficient Nickelate Films. *Physical Review Letters*, **2021**, 126, 187602	7.4	4
74	Evolution of spin excitations from bulk to monolayer FeSe. *Nature Communications*, **2021**, 12, 3122	17.4	8
73	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. *Nature*, **2021**, 594, E8-E9	50.4	
72	Hard, transparent, sp3-containing 2D phase formed from few-layer graphene under compression. *Carbon*, **2021**, 173, 744-757	10.4	15
71	First-principles calculation of oxygen vacancy effects on the magnetic properties of the perovskite SrNiO3. *Physical Review Materials*, **2021**, 5,	3.2	1
70	Electron Microscopy to Probe Flat Band Topological Systems of 2D and Pseudo 2D Quantum Materials. *Microscopy and Microanalysis*, **2020**, 26, 2376-2377	0.5	
69	Voltage Control of Magnetism above Room Temperature in Epitaxial SrCoFeO. *ACS Nano*, **2020**, 14, 8949-8957	15.7	14
68	Multiorbital charge-density wave excitations and concomitant phonon anomalies in BiSrLaCuO. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 16219-16225	11.5	9
67	Distinction between pristine and disorder-perturbed charge density waves in ZrTe. *Nature Communications*, **2020**, 11, 98	17.4	12
66	Single-frame far-field diffractive imaging with randomized illumination. *Optics Express*, **2020**, 28, 37103-37117	3.3	1
65	Dirac fermions and flat bands in the ideal kagome metal FeSn. *Nature Materials*, **2020**, 19, 163-169	27	121
64	High-valence metals improve oxygen evolution reaction performance by modulating 3d metal oxidation cycle energetics. *Nature Catalysis*, **2020**, 3, 985-992	36.5	149
63	Topological flat bands in frustrated kagome lattice CoSn. *Nature Communications*, **2020**, 11, 4004	17.4	43

62	Enhancement of interlayer exchange in an ultrathin two-dimensional magnet. *Nature Physics*, **2019**, 15, 1255-1260	16.2	85
61	Evolution of charge order topology across a magnetic phase transition in cuprate superconductors. *Nature Physics*, **2019**, 15, 335-340	16.2	13
60	de Haas-van Alphen effect of correlated Dirac states in kagome metal FeSn. *Nature Communications* , **2019**, 10, 4870	17.4	20
59	Carrier localization in perovskite nickelates from oxygen vacancies. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 21992-21997	11.5	41
58	Scale-invariant magnetic textures in the strongly correlated oxide NdNiO. *Nature Communications*, **2019**, 10, 4568	17.4	13
57	XMCD study of magnetism and valence state in iron-substituted strontium titanate. *Physical Review Materials*, **2019**, 3,	3.2	3
56	Temperature-independent thermal radiation. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**,	11.5	27
55	Anomalous Antiferromagnetism in Metallic RuO_{2} Determined by Resonant X-ray Scattering. *Physical Review Letters*, **2019**, 122, 017202	7.4	16
54	Resolving the nature of electronic excitations in resonant inelastic x-ray scattering. *Physical Review B*, **2019**, 99,	3.3	9
53	Perovskite nickelates as electric-field sensors in salt water. *Nature*, **2018**, 553, 68-72	50.4	91
52	Massive Dirac fermions in a ferromagnetic kagome metal. *Nature*, **2018**, 555, 638-642	50.4	255
51	Charge crystallization in a Fermi liquid. *Nature Materials*, **2018**, 17, 661-662	27	
50	Theory-driven design of high-valence metal sites for water oxidation confirmed using in situ soft X-ray absorption. *Nature Chemistry*, **2018**, 10, 149-154	17.6	328
49	Thermal conductivity in self-assembled CoFe2O4/BiFeO3 vertical nanocomposite films. *Applied Physics Letters*, **2018**, 113, 223105	3.4	3
48	Electron-phonon interaction in efficient perovskite blue emitters. *Nature Materials*, **2018**, 17, 550-556	27	310
47	Mottness at finite doping and charge-instabilities in cuprates. *Nature Physics*, **2017**, 13, 806-811	16.2	16
46	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. *Nano Letters*, **2017**, 17, 3701-3709	11.5	309
45	Habituation based synaptic plasticity and organismic learning in a quantum perovskite. *Nature Communications*, **2017**, 8, 240	17.4	60

44	Highly Efficient Perovskite-Quantum-Dot Light-Emitting Diodes by Surface Engineering. *Advanced Materials*, **2016**, 28, 8718-8725	24	700
43	Pure Cubic-Phase Hybrid Iodobismuthates AgBi2 I7 for Thin-Film Photovoltaics. *Angewandte Chemie - International Edition*, **2016**, 55, 9586-90	16.4	156
42	Pure Cubic-Phase Hybrid Iodobismuthates AgBi2I7 for Thin-Film Photovoltaics. *Angewandte Chemie* , **2016**, 128, 9738-9742	3.6	35
41	Amine-Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Light-Emitting Diodes. *Advanced Functional Materials*, **2016**, 26, 8757-8763	15.6	265
40	Tracking local magnetic dynamics via high-energy charge excitations in a relativistic Mott insulator. *Physical Review B*, **2016**, 94,	3.3	11
39	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 2807-15	24	94
38	Perovskite energy funnels for efficient light-emitting diodes. *Nature Nanotechnology*, **2016**, 11, 872-877	28.7	1484
37	Resonant X-Ray Scattering Studies of Charge Order in Cuprates. *Annual Review of Condensed Matter Physics*, **2016**, 7, 369-405	19.7	194
36	Response to Comment on "Broken translational and rotational symmetry via charge stripe order in underdoped YBa2Cu3O6+y". *Science*, **2016**, 351, 235	33.3	7
35	Homogeneously dispersed multimetal oxygen-evolving catalysts. *Science*, **2016**, 352, 333-7	33.3	1459
34	Highly efficient quantum dot near-infrared light-emitting diodes. *Nature Photonics*, **2016**, 10, 253-257	33.9	295
33	Ligand-Stabilized Reduced-Dimensionality Perovskites. *Journal of the American Chemical Society*, **2016**, 138, 2649-55	16.4	889
32	Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals. *Journal of Physical Chemistry Letters*, **2016**, 7, 295-301	6.4	268
31	The In-Gap Electronic State Spectrum of Methylammonium Lead Iodide Single-Crystal Perovskites. *Advanced Materials*, **2016**, 28, 3406-10	24	151
30	Lattice dynamics and the nature of structural transitions in organolead halide perovskites. *Physical Review B*, **2016**, 94,	3.3	34
29	Two-Photon Absorption in Organometallic Bromide Perovskites. *ACS Nano*, **2015**, 9, 9340-6	16.7	208
28	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. *Journal of Materials Chemistry C*, **2015**, 3, 8839-8843	7.1	129
27	Quantum-dot-in-perovskite solids. *Nature*, **2015**, 523, 324-8	50.4	382

26	Record Charge Carrier Diffusion Length in Colloidal Quantum Dot Solids via Mutual Dot-To-Dot Surface Passivation. *Advanced Materials*, **2015**, 27, 3325-30	24	103
25	Superconductivity. Broken translational and rotational symmetry via charge stripe order in underdoped YBa□u□(6+y). *Science*, **2015**, 347, 1335-9	33.3	123
24	Perovskite-fullerene hybrid materials suppress hysteresis in planar diodes. *Nature Communications*, **2015**, 6, 7081	17.4	815
23	Snapshots of the retarded interaction of charge carriers with ultrafast fluctuations in cuprates. *Nature Physics*, **2015**, 11, 421-426	16.2	78
22	Efficient Luminescence from Perovskite Quantum Dot Solids. *ACS Applied Materials & Interfaces*, **2015**, 7, 25007-13	9.5	401
21	Cleavable Ligands Enable Uniform Close Packing in Colloidal Quantum Dot Solids. *ACS Applied Materials & Interfaces*, **2015**, 7, 21995-2000	9.5	8
20	Colloidal Quantum Dot Photovoltaics Enhanced by Perovskite Shelling. *Nano Letters*, **2015**, 15, 7539-43	11.5	155
19	Perovskite Quantum Dots Modeled Using ab Initio and Replica Exchange Molecular Dynamics. *Journal of Physical Chemistry C*, **2015**, 119, 13965-13971	3.8	25
18	Symmetry of charge order in cuprates. *Nature Materials*, **2015**, 14, 796-800	27	166
17	Halide-Dependent Electronic Structure of Organolead Perovskite Materials. *Chemistry of Materials*, **2015**, 27, 4405-4412	9.6	251
16	Self-Assembled PbSe Nanowire:Perovskite Hybrids. *Journal of the American Chemical Society*, **2015**, 137, 14869-72	16.4	10
15	Planar-integrated single-crystalline perovskite photodetectors. *Nature Communications*, **2015**, 6, 8724	17.4	497
14	Solar cells. Low trap-state density and long carrier diffusion in organolead trihalide perovskite single crystals. *Science*, **2015**, 347, 519-22	33.3	3307
13	Charge ordering in the electron-doped superconductor Nd(2-x)Ce(x)CuO□ *Science*, **2015**, 347, 282-5	33.3	152
12	Ubiquitous interplay between charge ordering and high-temperature superconductivity in cuprates. *Science*, **2014**, 343, 393-6	33.3	425
11	Charge order driven by Fermi-arc instability in Bi2Sr(2-x)La(x)CuO(6+]1 *Science*, **2014**, 343, 390-2	33.3	425
10	Photo-enhanced antinodal conductivity in the pseudogap state of high-Tc cuprates. *Nature Communications*, **2014**, 5, 4353	17.4	33
9	Bond order and the role of ligand states in stripe-modulated IrTe2. *Physical Review B*, **2014**, 90,	3.3	15

8	Materials processing routes to trap-free halide perovskites. *Nano Letters*, **2014**, 14, 6281-6	11.5	567
7	Surface-enhanced charge-density-wave instability in underdoped Bi2Sr(2-x)La(x)CuO(6+δ) *Nature Communications*, **2013**, 4, 1977	17.4	20
6	Determining the surface-to-bulk progression in the normal-state electronic structure of Sr(2)RuO(4) by angle-resolved photoemission and density functional theory. *Physical Review Letters*, **2013**, 110, 097004	7.4	30
5	Na2IrO3 as a novel relativistic Mott insulator with a 340-meV gap. *Physical Review Letters*, **2012**, 109, 266406	7.4	160
4	Rashba spin-splitting control at the surface of the topological insulator Bi2Se3. *Physical Review Letters*, **2011**, 107, 186405	7.4	146
3	Structural origin of apparent Fermi surface pockets in angle-resolved photoemission of Bi2Sr(2-x)La(x)CuO(6+δ) *Physical Review Letters*, **2011**, 106, 127005	7.4	36
2	Surface core level shifts of clean and oxygen covered Ir(111). *New Journal of Physics*, **2009**, 11, 063002	2.9	47
1	Twofold van Hove singularity and origin of charge order in topological kagome superconductor CsV3Sb5. *Nature Physics*,	16.2	16