Bahadur Singh

List of Publications by Year
in descending order

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62 papers	2,945 citations	236925 25 h-index	161849 54 g-index
64 all docs	64 docs citations	64 times ranked	4080 citing authors

#	Article	IF	Citations
1	Topological phonons and electronic structure of Li₂BaSi class of semimetals. Journal of Physics Condensed Matter, 2022, 34, 125502.	1.8	2
2	Observation of multilayer quantum Hall effect in the charge density wave material <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CaCu</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review Research, 2022, 4, .	3.6	4
3	Topological Antiferromagnetic Van der Waals Phase in Topological Insulator/Ferromagnet Heterostructures Synthesized by a CMOSâ€Compatible Sputtering Technique. Advanced Materials, 2022, 34, e2108790.	21.0	9
4	Superconductivity in Heusler compound ScAu₂Al. Journal of Physics Condensed Matter, 2022, 34, 195403.	1.8	1
5	Collective plasmonic modes in the chiral multifold fermionic material CoSi. Physical Review B, 2022, 105, .	3.2	9
6	Anomalies at the Dirac Point in Graphene and Its Hole-Doped Compositions. Physical Review Letters, 2022, 128, 166401.	7.8	3
7	Weyl semimetal in the rare-earth hexaboride family supporting a pseudonodal surface and a giant anomalous Hall effect. Physical Review B, 2022, 105, .	3.2	4
8	Observation of a smoothly tunable Dirac point in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ge</mml:mi><mml:msub><mml:mrow><mml:mo>(</mml:mo> Physical Review Materials, 2022, 6, .	2.4	0
9	Orthorhombic charge density wave on the tetragonal lattice of EuAl₄. IUCrJ, 2022, 9, 378-385.	2.2	10
10	Topological states in superlattices of HgTe class of materials for engineering three-dimensional flat bands. Physical Review Research, 2022, 4, .	3.6	11
11	Magnetically tunable Dirac and Weyl fermions in the Zintl materials family. Physical Review Materials, 2022, 6, .	2.4	9
12	Critical role of magnetic moments in heavy-fermion materials: Revisiting <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>SmB</mml:mi></mml:mrow><mml:mn>6</mml:mn> Physical Review B, 2022, 105, .	3.2	6
13	Noncollinear ferromagnetic Weyl semimetal with anisotropic anomalous Hall effect. Physical Review B, 2021, 103, .	3.2	42
14	Fermi surface studies of the topologically nontrivial compound YSi. Physical Review B, 2021, 103, .	3.2	3
15	Magnetic and f-electron effects in LaNiO2 and NdNiO2 nickelates with cuprate-like $$3{d}_{{x}^{2}-{y}^{2}}$$ band. Communications Physics, 2021, 4, .	5.3	38
16	Cleaving plane-dependent electronic structures of transition metal diarsenides. Physical Review Research, 2021, 3, .	3.6	2
17	Topological Hall effect in the antiferromagnetic Dirac semimetal EuAgAs. Physical Review B, 2021, 103, .	3.2	19
18	Layer Hall effect in a 2D topological axion antiferromagnet. Nature, 2021, 595, 521-525.	27.8	136

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19	Aspects of symmetry and topology in the charge density wave phase of 1Tâ€“TiSe₂. New Journal of Physics, 2021, 23, 083037.	2.9	7
20	Topological theory of inversion-breaking charge-density-wave monolayer 1T-TiSe₂. New Journal of Physics, 2021, 23, 093025.	2.9	3
21	Design of a Stable Heusler Alloy with Switchable Metalâ€toâ€Halfâ€Metal Transition at Finite Temperature. Advanced Theory and Simulations, 2021, 4, 2100311.	2.8	6
22	Anomalies in the temperature evolution of Dirac states in the topological crystalline insulator SnTe. Physical Review B, 2021, 104, .	3.2	7
23	Weak antilocalization and Shubnikovâ€“de Haas oscillations in single crystal CaCuSb. Physical Review B, 2021, 104, .	3.2	2
24	Tunable spin polarization and electronic structure of bottom-up synthesized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>MoSi</mml:mi></mml:mrow><mml:mn>2</ mathvariant="normal">N</mml:mi></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:math> materials. Physical Review B, 2021, 104, .	3.2	37
25	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">K</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>CoS</mml:mi><mml:mn>2</mml:mn>2</mml:mn> : A two-dimensional in-plane antiferromagnetic insulator. Physical Review B, 2020, 102, .	3.2	3
26	Temperature-dependent electronic structure in a higher-order topological insulator candidate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Eu</mml:mi><mml:msub><mml:mi>In</mml:mi><mml:m Physical Review B, 2020, 102, .	3.2	30
27	Realization of an intrinsic ferromagnetic topological state in MnBi ₈ Te ₁₃. Science Advances, 2020, 6, eaba4275.	10.3	122
28	Magnetotransport properties of the topological nodal-line semimetal CaCdSn. Physical Review B, 2020, 102, .	3.2	29
29	Observation of gapped state in rare-earth monopnictide HoSb. Scientific Reports, 2020, 10, 12961.	3.3	14
30	Magnetotransport properties of noncentrosymmetric CaAgBi single crystal. Journal of Physics Condensed Matter, 2020, 32, 335701.	1.8	11
31	Topological Dirac Semimetal Phase in Bismuth Based Anode Materials for Sodium-Ion Batteries. Condensed Matter, 2020, 5, 39.	1.8	4
32	Ab initio description of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</ mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>8</mml:mn><mml:mo>+</mml:mo><mml:mi>Î´</mml:mi></mml:mrow></m electronic structure. Physical Review B, 2020, 101, .	3.2	11
33	Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide. Nature, 2020, 578, 545-549.	27.8	80
34	Transition from intrinsic to extrinsic anomalous Hall effect in the ferromagnetic Weyl semimetal PrAlGe1â^’xSix. APL Materials, 2020, 8, .	5.1	41
35	Exceptionally large anomalous Hall effect due to anticrossing of spin-split bands in the antiferromagnetic half-Heusler compound TbPtBi. Physical Review B, 2020, 101, .	3.2	24
36	Topological crystalline insulator state with type-II Dirac fermions in transition metal dipnictides. Physical Review B, 2019, 100, .	3.2	13

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37	Discovery of topological Weyl fermion lines and drumhead surface states in a room temperature magnet. Science, 2019, 365, 1278-1281.	12.6	374
38	Spin-dependent scattering induced negative magnetoresistance in topological insulator Bi2Te3 nanowires. Scientific Reports, 2019, 9, 7836.	3.3	16
39	Saddle-point Van Hove singularity and dual topological state in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Pt</mml:mi><mml:mn>22</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2019, 100, .	3.2	21
40	Prediction of threefold fermions in a nearly ideal Dirac semimetal BaAgAs. Physical Review Materials, 2019, 3, .	2.4	24
41	AtomicallyÂthin noble metal dichalcogenide: a broadband mid-infrared semiconductor. Nature Communications, 2018, 9, 1545.	12.8	367
42	Saddle-like topological surface states on the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>T</mml:mi><mml:msup><mml:mi>T</mml:mi><mml:mo>		

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55	Room-temperature magnetic topological Weyl fermion and nodal line semimetal states in half-metallic Heusler Co2TiX (X=Si, Ge, or Sn). Scientific Reports, 2016, 6, 38839.	3.3	148
56	Electric-field tunable Dirac semimetal state in phosphorene thin films. Physical Review B, 2016, 94, .	3.2	36
57	Role of surface termination in realizing well-isolated topological surface states within the bulk band gap in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TlBiSe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TlBiTe</mml:mi><mml:mn>2</mml:mn></mml:msub><m Physical Review B, 2016, 93, .	3.2	12
58	Spin-Texture of the Non-Trivial Surface State of Topological Insulator Sb2 Te3. Quantum Matter, 2016, 5, 362-364.	0.2	0
59	Orbital selective spin-texture in a topological insulator. AIP Conference Proceedings, 2015, , .	0.4	0
60	Topological phase transition and quantum spin Hall state in TlBiS2. Journal of Applied Physics, 2014, 116, 033704.	2.5	12
61	Topological phase transition and two-dimensional topological insulators in Ge-based thin films. Physical Review B, 2013, 88, .	3.2	19
62	Topological electronic structure and Weyl semimetal in the TlBiSe<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>class of semiconductors. Physical Review B, 2012, 86, .	3.2	135