Binghai Yan

Curriculum Vitae

May 2018

Birth: Oct-1981 in China
Address: Weizmann Institute of Science
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See also: Google Scholar Citations

Education

2003	B.sc.	Xi'an Jiaotong University, Xi'an, China
2008	PhD. in Physics	Tsinghua University, Beijing China Institute for Advanced Study (Prof. Binglin Gu and Prof. Wenhui Duan)

Experience

2008 - 2010	Humboldt postdoc	University of Bremen (Prof. Thomas Frauenheim), Germany
2010 - 2011	Postdoc	Stanford University (Prof. Shou-Cheng Zhang), US
2011 - 2012	Humboldt postdoc	University of Bremen (Prof. Thomas Frauenheim), Germany
2012 - 2017	Group leader	MPI for Chemical Physics of Solids (Prof. Claudia Felser) & MPI for Physics of Complex Systems (joint), Germany.
Since Feb-2017	Senior Scientist	Weizmann Institute of Science, Israel.

Scholarships and Awards

2008 Humboldt Fellowship by Humboldt Foundation in Germany
2013 ARCHES Prize by BMBF and Minerva Foundation, Germany
2017 IPS prize for Young Scientist by the Israel Physics Society (IPS), Israel

Research Grants

2014 - 2018 ARCHES Prize, Minerva Stiftung and BMBF, Germany
Title: Topological superconducting materials
Role: Co-PI.

2016 - 2017 DFG-SPP "Topological Insulator" (SPP-1666 / YA 328/5-1)
Title: Topological Weyl Semimetals for Spintronic Devices
Role: Co-PI.

2017 - 2019 German Israel Foundation (GIF Grant no. I-1364-303.7/2016)
Title: Computation and Visualization of Unexplored Topological Phases
Role: Co-PI.

2018 - 2022 Max Planck Lab on the subject "Topological materials".
Role: PI.

Organizing Workshops and Journal Issues

2012 The CECAM workshop - Topological Materials, University of Bremen, Germany
Organizers: B. Yan, C. Felser, Z. Fang, W. Hanke, T. Frauenheim

2013 Focus Issue on Topological Insulators - From Materials Design to Reality
in Phys. Status Solidi RRL
Guest Editors: C. Felser, S.-C. Zhang, B. Yan

2016 Weizmann - Max Planck workshop, Rehovot, Israel
Organizers: N. Avraham, H. Beidenkopf, C. Felser and B. Yan

2016 Young Research Leaders Workshop: New Paradigms in Dirac-Weyl Nanoelectronics, Germany
Organizers: M. Ali and B. Yan

2017 Young Research Leaders Workshop: Chemistry meets Physics in Topology, Germany
Organizers: B. Yan, L. Schoop

2017 Weizmann - Max Planck workshop, Dresden, Germany
Organizers: N. Avraham, H. Beidenkopf, C. Felser and B. Yan

2017 Topological semimetals and beyond, Rehovot, Israel
Organizers: N. Avraham, H. Beidenkopf and B. Yan

2018 Weizmann - Max Planck workshop, Jerusalem, Israel
Organizers: N. Avraham, H. Beidenkopf, C. Felser and B. Yan

2018 Workshop for Young Research Leaders: Topological Matter
Organizers: R. Queiroz, P. Moll and B. Yan

Invited Talks in Conferences

2013.06 The crossover between 2D and 3D in layered topological insulators
CECAM workshop: Novel 2D materials, Bremen, Germany
2013.07 Topological insulators
ASPIMATT summer school, MPI-CPfS, Dresden, Germany
2013.07 Heusler compounds, spin orbit coupling, topological insulators and new effects
Worshop Spin Orbit Entanglement, Dresden, Germany
2013.09 Heusler compounds, topological insulators and new effects
Worshop Electronic properties of spin-orbit driven oxides, Dresden, Germany
2015.06 Topological insulator and topological metal
Symposium on "New Concept Spintronics Devices", York, UK
2015.07 Topological Metals: from the Shockley states to topological states
Workshop of Advances in Nanoscience Applications, University of Cambridge, UK
2015.07 Topological insulators and topological metals
TRR80 Summer School, Chiemsee, Germany
2015.10 Topological Weyl Semimetals
Workshop Beyong CMOS, Castle Ringberg, Germany
2016.03 The type-II Weyl semimetal in MoTe2
Weizmann-Max Planck workshop, Weizmann Institute, Israel
2016.03 Topological surface Fermi arcs in Weyl Semi-Metal materials
DPG Spring Meeting, Regensburg, Germany
2016.04 Topological surface states and chiral magneto-transport in TaAs-type of Weyl semimetals
Workshop "The 2nd Floating Zone technique", IFW Dresden, Germany
2016.06 Giant intrinsic spin Hall effect in the Weyl Semimetals
Young Research Leaders Group Workshop, Mainz, Germany
2016.06 Discovery of a new type of topological Weyl semimetal in MoTe2
CECAM-Workshop "Tailor-made 2D-materials and functional devices", Bremen, Germany
2016.07 Large magnetoresistance and the Fermi surface topology of the NbP-type Weyl semimetals
22nd Conference on High Magnetic Fields in Semiconductor Physics, Sapporo-shi, Japan
2016.07 Surface Fermi arcs and bulk spin currents in the Weyl semimetals
New Trends in Topological Insulators 2016 (NTTI 2016) and
17th International Conference on Narrow Gap Semiconductors (NGS17), Wrzburg, Germany
2016.08 Spin orbit interaction; 2D and 3D topological insulators
Summer school on "Topological Matter States 2016", San Sebastian, Spain
2016.09 Surface Fermi arcs and bulk spin transport in the Weyl SemiMetals
Condensed Matter in Groningen (CMD26), Groningen, Netherland
2016.09 Topological Fermi arcs of Weyl Semimetal Materials: from the bulk to the surface
Yukawa Institute for Theoretical Physics(YITP) international workshop [BEC2016], Kyoto, Japan
2016.12 AFM Weyl SemiMetal Materials
SRitp Workshop: Strongly Correlated Matter: Present and Future, Weizmann Institute, Israel
2017.02 Dirac nodal lines and induced spin Hall effect in metallic rutile oxides
Young Research Leaders Group Workshop: Chemistry meets Physics in Topology, Germany
2017.03 Topological Weyl Semimetal Materials Surface Fermi Arcs and Bulk Spin Current
APS March Meeting, New Orleans, US

2017.06 Berry phase and spin current in chiral AFM Weyl Semimetals
2nd Weizmann ? Max Planck Workshop, Dresden, Germany
2017.06 The type-II Weyl semimetal phase in MoTe2
2D and layered Materials, Ohio State University, USA
2017.06 Berry phase and spin current in chiral AFM Weyl Semimetals
3rd Conference on Condensed Matter Physics (CCMP-2017), Shanghai, China
2017.09 Berry phase and spin current in Weyl Semimetals
CECAM ab initio Spin-orbitronics, Montesilvano, Pescara (Italy)
2017.12 Topological Responses in Weyl semimetal Materials
Israel Physics Society Conference 2017, Haifa, Israel
2018.02 Topological materials with photocurrents generated by nonlinear optical effects
Weizmann - Max Planck workshop, Jerusalem, Israel
2018.05 Berry phase induced higher order responses in topological materials
Topological Matter & Quantum Computing, Kavli Institute of Science, Beijing, China

Invited Talks in Institutes

2011.04 Theoretical prediction of topological insulators: the TlBiSe2 family and the CeOs4Sb12 family
University of Wuerzburg, Wuerzburg, Germany
2012.11 Topological insulator materials
Lorentz Center, Leiden University, Netherland
2013.04 Strong and weak topological insulators in the honeycomb lattice
EPFL, Lausanne, Switzerland
2014.02 Topological insulators from the perspective of chemistry
Weizmann Institute of Science, Israel
2014.06 Topological insulator materials with large energy-gap (Colloquium)
University of Wuerzburg, Germany
2014.08 Topological insulator materials in the honeycomb lattice
University of Duisburg-Essen, Germany
2015.02 Quantum Anomalous Hall Effects on the Novel Honeycomb Material Stanene
University of Mainz, Germany
2015.03 Topological insulators and topological metals
IBM Almaden Research Center, US
2015.03 Topological insulating states with maximized energy gap
Stanford University, US
2015.12 Topological surface stats and the chiral anomaly in Weyl semimetals
University of Wuerzburg, Germany
2016.01 Materials Design for topological quantum materials
Weizmann Institute of Science, Israel
2016.03 Materials Design for topological quantum materials
Stuttgart University, Stuttgart, Germany
2016.03 An introduction to topological Weyl semimetals
Max Planck Institute for microstructure physics, Halle, Germany
2016.05 Surface Fermi arcs and bulk chiral magneto-transport of the Weyl semimetals
Max-Planck-Institut fr Festkrperforschung, Stuttgart, Germany

2016.07 Surface Fermi arcs and bulk chiral magneto-transport of the TaAs family Weyl semimetals
Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany
2017.07 Berry phase and spin current in chiral AFM Weyl Semimetals
IASTU, Tsinghua University, Beijing, China
2017.08 Berry curvature monoples and dipoles in Weyl Semimetal mateirals
University of Pennsylvania (Penn), Philadelphia, PA, US
2017.08 Berry curvature monoples and dipoles in Weyl Semimetal mateirals
Rutgers, The State University of New Jersey (Rutgers), Piscataway, NJ, USA
2017.08 Berry curvature dipoles and nonlinear optical response in Weyl Semimetal materials
Pennsylvania State University (PSU), College Park, PA, USA
2017.08 Berry phase and spin current in Weyl Semimetals
Carnegie Mellon University (CMU), Pittsburg, PA, USA
2017.09 Berry curvature dipole in Weyl Semimetal materials
Massachusetts Institute of Technology (MIT), Cambridge, MA, USA
2017.09 Berry phase and spin current in Weyl Semimetals
Harvard University, Cambridge, MA, USA
2017.10 Berry curvature dipole in Weyl Semimetals
Peking University, Beijing, China
2017.10 Nonlinear anomalous Hall effect in Weyl Semimetals
Tsinghua University, Beijing, China
2017.10 Topological insulators and topological semimetals(Colloquium)
Stuttgart University, Stuttgart, Germany
2017.12 Weyl Semimetal Materials: from Bulk to Surface (Colloquium)
Technion, Haifa, Israel
2017.12 Berry curvature dipole in Weyl materials
Max Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany
2018.05 Topological materials and topological responses
Bar-Ilan University, Ramat-Gan, Israel

List of Publications

A brief overview:

Journal	Number
Nature	1
Nature Materials	2
Nature Physics	3
Nature Nanotechnology	1
Nature Communications	6
Science Advances	4
Physical Review Letters	16
Physical Review X	1
Physical Review B	39
Ann. Rev. Cond. Matter Phys.	1
Reports on Progress in Physics	1
Angewandte Chemie	2
Nano Letters	5

More bibliometrics information can be found in Google Scholar Citations:
`https://scholar.google.de/citations?user=504Jb_IAAAAJ&hl=en`

Invited Reviews and Perspectives

1. Smejkal, L., Y. Mokrousov, B. ***Yan***, and A. H. MacDonald.
Topological antiferromagnetic spintronics.
Nature Physics **14**(3) (Mar. 2018), 242–251.
2. ***Yan***, B. and C. Felser.
Topological Materials: Weyl Semimetals.
Annual Review of Condensed Matter Physics **8**(1) (2017), 337–354, arXiv:1611.04182.
3. Felser, C. and B. ***Yan***.
Weyl semimetals: Magnetically induced.
Nature Materials **15**(11) (Nov. 2016), 1149–1150.
4. ***Yan***, B. and A. de Visser.
Half-Heusler topological insulators.
MRS Bulletin **39** (2014), 859–866.
5. M*ü*chler, L., F. Casper, B. ***Yan***, S. Chadov, and C. Felser.
Topological insulators and thermoelectric materials.
physica status solidi (RRL)-Rapid Research Letters **7** (2012), 91–100.
6. M*ü*chler, L., H. Zhang, S. Chadov, B. ***Yan***, F. Casper, J. K*ü*bler, S.-C. Zhang, and C. Felser.
Topological Insulators from a Chemist's Perspective.
Angewandte Chemie **51**(29) (2012), 7221–7225.
7. ***Yan***, B. and S.-C. Zhang.
Topological materials.
Reports on Progress in Physics **75**(9) (2012), 096501(23pp).

Peer Reviewed Articles

1. Jiang, J., N. Schroeter, S.-C. Wu, N. Kumar, C. Shekhar, H. Peng, X. Xu, C. Chen, H. Yang, C.-C. Hwang, S.-K. Mo, F. C, B. ***Yan***, Z.-K. Liu, L. Yang, and Y.-L. Chen.
Observation of topological surface states and strong electron/hole imbalance in extreme magnetoresistance compound LaBi.
Physical Review Materials 2(2) (2018), 024201.
2. Kou, L., H. Fu, Y. Ma, B. ***Yan***, T. Liao, A. Du, and C. Chen.
Two-dimensional ferroelectric topological insulators in functionalized atomically thin bismuth layers.

Physical Review B **97**(7) (2018), 075429.

3. Qi, Y., W. Shi, P. Werner, P. G. Naumov, W. Schnelle, L. Wang, K. G. Rana, S. Parkin, S. A. Medvedev, B. ***Yan***, and C. Felser.
Pressure-induced superconductivity and topological quantum phase transitions in a quasi-one-dimensional topological insulator: Bi4I4.
NPJ Quantum Materials **3**(1) (2018), 4.
4. Schoop, L. M., A. Topp, J. Lippmann, F. Orlandi, L. Muechler, M. G. Vergniory, Y. Sun, A. W. Rost, V. Duppel, M. Krivenkov, S. Sheoran, P. Manuel, A. Varykhalov, B. ***Yan***, R. K. Kremer, C. R. Ast, and B. V. Lotsch.
Tunable Weyl and Dirac states in the nonsymmorphic compound CeSbTe.
Science Advances **4**(2) (Feb. 2018), eaar2317.
5. Yang, S.-Y., H. Yang, E. Derunova, S. S. Parkin, B. ***Yan***, and M. N. Ali.
Symmetry demanded topological nodal-line materials.
Advances in Physics: X **3**(1) (2018), 1414631.
6. Zhang, Y., Y. Sun, and B. ***Yan***.
Berry curvature dipole in Weyl semimetal materials: An ab initio study.
Physical Review B **97**(4) (2018), 041101.
7. Chen, C., X. Xu, J. Jiang, S.-C. Wu, Y. P. Qi, L. X. Yang, M. X. Wang, Y. Sun, N. B. M. Schroeter, H. F. Yang, L. M. Schoop, Y. Y. Lv, J. Zhou, Y. B. Chen, S. H. Yao, M. H. Lu, Y. F. Chen, C. Felser, B. H. ***Yan***, Z. K. Liu, and Y. L. Chen.
Dirac line nodes and effect of spin-orbit coupling in the nonsymmorphic critical semimetals M SiS (M= Hf, Zr).
Physical Review B **95** (12 Mar. 2017), 125126 (7pp).
8. Ekahana, S. A., S.-C. Wu, J. Jiang, K. Okawa, D. Prabhakaran, C.-C. Hwang, S.-K. Mo, T. Sasagawa, C. Felser, B. ***Yan***, and Y. Chen.
Observation of nodal line in non-symmorphic topological semimetal InBi.
New Journal of Physics **19**(6) (2017), 065007.
9. Gooth, J., A. C. Niemann, T. Meng, A. G. Grushin, K. Landsteiner, B. Gotsmann, F. Menges, M. Schmidt, C. Shekhar, V. Suss, R. Huehne, B. Rellinghaus, C. Felser, B. ***Yan***, and K. Nielsch.
Experimental signatures of the mixed axial-gravitational anomaly in the Weyl semimetal NbP.
Nature **547**(7663) (July 2017), 324–327.
10. Jiang, J., Liu, Z. K., Sun, Y., Yang, H F, Rajamathi, C R, Qi, Y P, Yang, L X, Chen, C, Peng, H, Hwang, C C, Sun, S Z, Mo, S.-K., Vobornik, I, Fujii, J, Parkin, S.S.P., Felser, C., Yan, Binghai, and Chen, Y. L.
Signature of type-II Weyl semimetal phase in MoTe2.
Nature Communications **8** (2017), 13973 (6pp).
11. Kumar, N., K. Manna, Y. Qi, S.-C. Wu, L. Wang, B. ***Yan***, C. Felser, and C. Shekhar.
Unusual magnetotransport from Si-square nets in topological semimetal HfSiS.
Physical Review B **95**(12) (2017), 121109 (5pp).
12. Kumar, N., Y. Sun, N. Xu, K. Manna, M. Yao, V. Suess, I. Leermakers, O. Young, T. Foerster, M. Schmidt, B. ***Yan***, U. Zeitler, C. Felser, and C. Shekhar.
Extremely high magnetoresistance and conductivity in the type-II Weyl semimetals WP 2 and MoP 2.
Nature Communications **8**(1) (2017), 1642.
13. Li, Y., Y. Xia, S. A. Ekahana, N. Kumar, J. Jiang, L. Yang, C. Chen, C. Liu, B. ***Yan***, C. Felser, G. Li, Z. Liu, and Y. Chen.
Topological origin of the type-II Dirac fermions in PtSe 2.
Physical Review Materials **1**(7) (2017), 074202.
14. Liang, A. J., J. Jiang, M. X. Wang, Y. Sun, N. Kumar, C. Shekhar, C. Chen, H. Peng, C. W. Wang, X. Xu, H. F. Yang, S. T. Cui, G. H. Hong, Y.-Y. Xia, S.-K. Mo, Q. Gao, X. J. Zhou, L. X. Yang, C. Felser, B. H. ***Yan***, Z. K. Liu, and Y. L. Chen.
Observation of the topological surface state in the nonsymmorphic topological insulator KHgSb.

Physical Review B **96** (16 Oct. 2017), 165143.

15. Nayak, J., S.-C. Wu, N. Kumar, C. Shekhar, S. Singh, J. Fink, E. E. D. Rienks, G. H. Fecher, S. S. P. Parkin, B. ***Yan***, and C. Felser.
Multiple Dirac cones at the surface of the topological metal LaBi.
Nature Communications **8** (2017), 113942.
16. Niemann, A. C., J. Gooth, S.-C. Wu, S. Baessler, P. Sergelius, R. Huehne, B. Rellinghaus, C. Shekhar, V. Suess, M. Schmidt, C. Felser, B. ***Yan***, and K. Nielsch.
Chiral magnetoresistance in the Weyl semimetal NbP.
Scientific Reports **7** (2017), 43394 (6pp).
17. Prasad, B. E., S. Kanungo, M. Jansen, A. C. Komarek, B. ***Yan***, P. Manuel, and C. Felser.
AgRuO3, a Strongly Exchange-Coupled Honeycomb Compound Lacking Long-Range Magnetic Order.
Chemistry-A European Journal **23**(19) (Apr. 2017), 4680–4686.
18. Qi, Y., H. Lei, J. Guo, W. Shi, B. ***Yan***, C. Felser, and H. Hosono.
Superconductivity in Alkaline Earth Metal-Filled Skutterudites BaxIr4X12 (X = As, P).
Journal of the American Chemical Society **139**(24) (2017), 8106–8109.
19. Qi, Y., W. Shi, P. G. Naumov, N. Kumar, R. Sankar, W. Schnelle, C. Shekhar, F.-C. Chou, C. Felser, B. ***Yan***, and S. A. Medvedev.
Topological quantum phase transition and superconductivity induced by pressure in the bismuth tellurohalide BiTeI.
Advanced Materials (2017), 1605965 (7pp).
20. Rajamathi, C. R., U. Gupta, N. Kumar, H. Yang, Y. Sun, V. Suess, C. Shekhar, M. Schmidt, H. Blumtritt, P. Werner, B. ***Yan***, S. Parkin, C. Felser, and C. N. R. Rao.
Weyl Semimetals as Hydrogen Evolution Catalysts.
Advanced Materials **54** (Mar. 2017), 1606202 (6pp).
21. Rajamathi, C. R., U. Gupta, K. Pal, N. Kumar, H. Yang, Y. Sun, C. Shekhar, B. ***Yan***, S. Parkin, U. V. Waghmare, C. Felser, and C. N. R. Rao.
Photochemical water splitting by bismuth chalcogenide topological insulators.
ChemPhysChem **18**(17) (July 2017), 2322–2327.
22. Reiner, J., A. K. Nayak, N. Avraham, A. Norris, B. ***Yan***, I. C. Fulga, J.-H. Kang, T. Karzig, H. Shtrikman, and H. Beidenkopf.
Hot Electrons Regain Coherence in Semiconducting Nanowires.
Phys. Rev. X **7**(2) (May 2017), 021016.
23. Sessi, P., Y. Sun, T. Bathon, F. Glott, Z. Li, H. Chen, L. Guo, X. Chen, M. Schmidt, C. Felser, B. ***Yan***, and M. Bode.
Impurity screening and stability of Fermi arcs against Coulomb and magnetic scattering in a Weyl monopnictide.
Physical Review B **95**(3) (2017), 035114 (6pp).
24. Shen, L., M. Wang, S. Sun, J. Jiang, X. Xu, T. Zhang, Q. Zhang, Y. Lv, S. Yao, Y. Chen, M. Lu, Y. Chen, C. Felser, B. ***Yan***, Z. Liu, L. Yang, and Y. Chen.
Spectroscopic evidence for the gapless electronic structure in bulk ZrTe5.
Journal of Electron Spectroscopy and Related Phenomena **219** (2017), 45–52.
25. Sun, Y., Y. Zhang, C.-X. Liu, C. Felser, and B. ***Yan***.
Dirac nodal lines and induced spin Hall effect in metallic rutile oxides.
Physical Review B **95**(23) (2017), 235104.
26. Wu, J., H. Yuan, M. Meng, C. Chen, Y. Sun, Z. Chen, W. Dang, C. Tan, Y. Liu, J. Yin, Y. Zhou, S. Huang, H. Q. Xu, Y. Cui, H. Y. Hwang, Z. Liu, Y. Chen, B. ***Yan***, and H. Peng.
High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting Bi2O2Se.
Nature Nanotechnology **5** (Apr. 2017), 4475 (6pp).
27. Wu, S.-C., Y. Sun, C. Felser, and B. ***Yan***.

Hidden type-II Weyl points in the Weyl semimetal NbP.
Physical Review B **96**(16) (2017), 165113.

28. Yang, H., Y. Sun, Y. Zhang, W.-J. Shi, S. S. Parkin, and B. ***Yan***.
Topological Weyl semimetals in the chiral antiferromagnetic materials Mn3Ge and Mn3Sn.
New Journal of Physics **19**(1) (2017), 015008(7pp).
29. Yang, H., J. Yu, S. S. P. Parkin, C. Felser, C.-X. Liu, and B. ***Yan***.
Prediction of Triple Point Fermions in Simple Half-Heusler Topological Insulators.
Physical Review Letters **119** (13 Sept. 2017), 136401.
30. Yasuoka, H., T. Kubo, Y. Kishimoto, D. Kasinathan, M. Schmidt, B. ***Yan***, Y. Zhang, H. Tou, C. Felser, A. Mackenzie, and M. Baenitz.
Emergent Weyl Fermion Excitations in TaP Explored by Ta 181 Quadrupole Resonance.
Physical Review Letters **118**(23) (2017), 236403.
31. Yu, J., B. ***Yan***, and C.-X. Liu.
Model Hamiltonian and time reversal breaking topological phases of antiferromagnetic half-Heusler materials.
Physical Review B **95** (23 June 2017), 235158.
32. Zelezny, J., Y. Zhang, C. Felser, and B. ***Yan***.
Spin-Polarized Current in Noncollinear Antiferromagnets.
Physical Review Letters **119** (18 Nov. 2017), 187204.
33. Zhang, Q., Z. Liu, Y. Sun, H. Yang, J. Jiang, S.-K. Mo, Z. Hussain, X. Qian, L. Fu, S. Yao, M. Lu, C. Felser, B. ***Yan***, Y. Chen, and L. Yang.
Lifshitz Transitions Induced by Temperature and Surface Doping in Type-II Weyl Semimetal Candidate Td-WTe2.
physica status solidi (RRL)-Rapid Research Letters (2017).
34. Zhang, Y., Y. Sun, H. Yang, J. Zelezny, S. P. Parkin, C. Felser, and B. ***Yan***.
Strong anisotropic anomalous Hall effect and spin Hall effect in the chiral antiferromagnetic compounds Mn 3 X (X= Ge, Sn, Ga, Ir, Rh, and Pt).
Physical Review B **95**(7) (2017), 075128 (9pp).
35. Arnold, F., M. Naumann, S.-C. Wu, Y. Sun, M. Schmidt, H. Borrmann, C. Felser, B. ***Yan***, and E. Hassinger.
Chiral Weyl Pockets and Fermi Surface Topology of the Weyl Semimetal TaAs.
Physical Review Letters **117** (14 Sept. 2016), 146401.
36. Arnold, F., C. Shekhar, S.-C. Wu, Y. Sun, R. D. dos Reis, N. Kumar, M. Naumann, M. O. Ajeesh, M. Schmidt, A. G. Grushin, J. H. Bardarson, M. Baenitz, D. Sokolov, H. Borrmann, M. Nicklas, C. Felser, E. Hassinger, and B. ***Yan***.
Negative magnetoresistance without well-defined chirality in the Weyl semimetal TaP.
Nature Communications **7** (2016), 11615 (7pp).
37. Batabyal, R., N. Morali, N. Avraham, Y. Sun, M. Schmidt, C. Felser, A. Stern, B. ***Yan***, and H. Beidenkopf.
Visualizing weakly bound surface Fermi arcs and their correspondence to bulk Weyl fermions.
Science Advances **2**(8) (2016), e1600709 (7pp).
38. Dong, X.-Y., S. Kanungo, B. ***Yan***, and C.-X. Liu.
Time-reversal-breaking topological phases in antiferromagnetic Sr2FeOsO6 films.
Physical Review B **94**(24) (2016), 245135.
39. Kanungo, S., K. Mogare, B. ***Yan***, M. Reehuis, A. Hoser, C. Felser, and M. Jansen.
Weak orbital ordering of Ir t 2 g states in the double perovskite Sr2CeIrO6.
Physical Review B **93**(24) (2016), 245148 (6pp).
40. Kanungo, S., B. ***Yan***, C. Felser, and M. Jansen.
Active role of nonmagnetic cations in magnetic interactions for double-perovskite S r2BOsO6 (B= Y, In, Sc).
Physical Review B **93**(16) (2016), 161116(R) (6pp).

41. Klotz, J., S.-C. Wu, C. Shekhar, Y. Sun, M. Schmidt, M. Nicklas, M. Baenitz, M. Uhlarz, J. Wosnitza, C. Felser, and B. ***Yan***.
Quantum oscillations and the Fermi surface topology of the Weyl semimetal NbP.
Physical Review B **93**(12) (2016), 121105 (5pp).
42. Kumar, N., C. Shekhar, S.-C. Wu, I. Leermakers, O. Young, U. Zeitler, B. ***Yan***, and C. Felser.
Observation of pseudo-two-dimensional electron transport in the rock salt-type topological semimetal LaBi.
Physical Review B **93**(24) (2016), 241106 (6pp).
43. Liu, Z. K., L. X. Yang, Y. Sun, T. Zhang, H. Peng, H. F. Yang, C. Chen, Y. Zhang, Y. F. Guo, D. Prabhakaran, M. Schmidt, Z. Hussain, S.-K. Mo, C. Felser, B. ***Yan***, and Y. L. Chen.
Evolution of the Fermi surface of Weyl semimetals in the transition metal pnictide family.
Nature Materials **15**(1) (2016), 27–31.
44. Liu, Z. K., L. X. Yang, S. C. Wu, C. Shekhar, J. Jiang, H. F. Yang, Y. Zhang, S.-K. Mo, Z. Hussain, B. ***Yan***, C. Felser, and Y. L. Chen.
Observation of unusual topological surface states in half-Heusler compounds LnPtBi (Ln = Lu, Y).
Nature Communications **7** (Sept. 2016), 12924 (7pp).
45. Nayak, A. K., J. E. Fischer, Y. Sun, B. ***Yan***, J. Karel, A. C. Komarek, C. Shekhar, N. Kumar, W. Schnelle, J. Ku bler, C. Felser, and S. Parkin.
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