

## Subdivision 13, Publications 2018 – 2020

Creation date: 25/02/2021

### Articles in journals

- 1) **Hentrich, R., Hong, X., Gillig, M., Cagliaris, F., Čulo, M., Shahrokhvand, M., Zeitler, U., Roslova, M., Isaeva, A., Doert, T., Janssen, L., Vojta, M., Büchner, B., Hess, C.**, High-field thermal transport properties of the Kitaev quantum magnet  $\alpha$ -RuCl<sub>3</sub>: Evidence for low-energy excitations beyond the critical field, *Physical Review B* 23 102 (2020), S. 235155/1-8 <https://journals.aps.org/prb/abstract/10.1103/PhysRevB.102.235155>.
- 2) **Fulga, I.C., Oreg, Y., Mirlin, A.D., Stern, A., Mross, D.F.**, Temperature Enhancement of Thermal Hall Conductance Quantization, *Physical Review Letters* 23 125 (2020), S. 236802/ <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.125.236802>.
- 3) **Sykora, S., Schoop, J., Graf, L., Shipunov, G., Morozov, I.V., Aswartham, S., Büchner, B., Hess, C., Giraud, R., Dufouleur, J.**, Disorder-induced coupling of Weyl nodes in WTe<sub>2</sub>, *Physical Review Research* 3 2 (2020), S. 033041/1-8 <https://journals.aps.org/prresearch/abstract/10.1103/PhysRevResearch.2.033041>.
- 4) Trugenberger, C., Diamantini, M.C., **Poccia, N., de Souza Nogueira, F., Vinokur, V.M.**, Magnetic Monopoles and Superinsulation in Josephson Junction Arrays, *Quantum Reports* 3 2 (2020), S. 388-399 <https://www.mdpi.com/2624-960X/2/3/27>.
- 5) **Shipunov, G., Kovalchuk, I., Piening, B.R., Labracherie, V., Veyrat, A., Wolf, D., Lubk, A., Subakti, S., Giraud, R., Dufouleur, J., Shokri, S., Cagliaris, F., Hess, C., Efremov, D.V., Büchner, B., Aswartham, S.**, Polymorphic PtBi<sub>2</sub>: Growth, structure, and superconducting properties, *Physical Review Materials* 12 4 (2020), S. 124202/1-8 <https://journals.aps.org/prmaterials/abstract/10.1103/PhysRevMaterials.4.124202>.
- 6) **Ghimire, M.P., Facio, J.I., You, J.-S., Ye, L., Checkelsky, J.G., Fang, S., Kaxiras, E., Richter, M., van den Brink, J.**, Creating Weyl nodes and controlling their energy by magnetization rotation, *Physical Review Research* 3 1 (2019), S. 032044/1-7 <https://journals.aps.org/prresearch/abstract/10.1103/PhysRevResearch.1.032044>.
- 7) Tutschku, C., **de Souza Nogueira, F., Northe, C., van den Brink, J., Hankiewicz, E.**, Temperature and chemical potential dependence of the parity anomaly in quantum anomalous Hall insulators, *Physical Review B* 20 102 (2020), S. 205407/1-8 <https://doi.org/10.1103/PhysRevB.102.205407>.
- 8) Lê Anh, M., Kaiser, M., **Ghimire, M.P., Richter, M., Koepernik, K., Gruschwitz, M., Tegenkamp, C., Doert, T., Ruck, M.**, The Weak 3D Topological Insulator Bi<sub>12</sub>Rh<sub>3</sub>Sn<sub>3</sub>I<sub>9</sub>, *Chemistry - A European Journal* 26 (2020), S. 15549-15557 <https://doi.org/10.1002/chem.202001953>.
- 9) **Borisenko, S., Bezguba, V., Fedorov, A., Kushnirenko, Y., Voroshnin, V., Sturza, M., Aswartham, S., Yaresko, A.**, Strongly correlated superconductor with polytypic 3D Dirac points, *npj Quantum Materials* 1 5 (2020), S. 67/1-8 <https://doi.org/10.1038/s41535-020-00268-4>.
- 10) **Zhang, Y., Xu, Q., Koepernik, K., Fu, C., Gooth, J., van den Brink, J., Felser, C., Sun, Y.**, Spin Nernst effect in a p-band semimetal InBi, *New Journal of Physics* 9 22 (2020), S. 093003/1-8 <https://doi.org/10.1088/1367-2630/abaa87>.
- 11) Filnov, S.O., Klimovskikh, I.I., Estyunin, D.A., **Fedorov, A.V., Voroshnin, V.Yu., Koroleva, A.V., Rybkin, A.G., Shevchenko, E.V., Aliev, Z.S., Babanly, M.B., Amiraslanov, I.R., Mamedov, N.T., Schwier, E.F., Miyamoto, K., Okuda, T., Kumar, S., Kimura, A., Misheneva, V.M., Shikin, A.M., Chulkov, E.V.**, Probe-dependent Dirac-point gap in the gadolinium-doped thallium-based

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<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.102.085149>.
- 12) Türker, O., **van den Brink, J.**, Meng, T., **Nogueira, F.**, Bosonization in 2+1 dimensions via Chern-Simons bosonic particle-vortex duality, *Physical Review D* 3 102 (2020), S. 034506/1-14.
  - 13) Fornari, C., Bentmann, H., Morelhão, S., Peixoto, T., Rappl, P., Tcakaev, A., Zabolotnyy, V., Kamp, M., Lee, T., Min, C., Kagerer, P., Vidal, R., **Isaeva, A.**, Ruck, M., Hinkov, V., Reinert, F., Abramof, E., Incorporation of Europium in  $\text{Bi}_2\text{Te}_3$  Topological Insulator Epitaxial Films, *The Journal of Physical Chemistry C* 29 124 (2020), S. 16048-16057  
<https://doi.org/10.1021/acs.jpcc.0c05077>.
  - 14) **Zeisner, J.**, **Mehlawat, K.**, **Alfonsov, A.**, Roslova, M., Doert, T., **Isaeva, A.**, **Büchner, B.**, **Kataev, V.**, Electron spin resonance and ferromagnetic resonance spectroscopy in the high-field phase of the van der Waals magnet  $\text{CrCl}_3$ , *Physical Review Materials* 6 4 (2020), S. 064406/1-8  
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  - 15) Changdar, S., **Aswartham, S.**, Bose, A., **Kushnirenko, Y.**, **Shipunov, G.**, Plumb, N.C., Shi, M., Narayan, A., **Büchner, B.**, **Thirupathaiah, S.**, Electronic structure studies of  $\text{FeSi}$ : A chiral topological system, *Physical Review B* 23 101 (2020), S. 235105/1-8  
<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.101.235105>.
  - 16)\* **Giraud, R.**, **Dufouleur, J.**, Quantum Transport in Nanostructures of 3D Topological Insulators, *Physica Status Solidi B - Basic Solid State Physics* 1 258 (2021), S. 2000066/1-12  
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  - 17) **Isaeva, A.**, Schönemann, R., Doert, T., Syntheses, Crystal Structure and Magnetic Properties of  $\text{Tl}_9\text{RETe}_6$  (RE = Ce, Sm, Gd), *Crystals* 4 10 (2020), S. 277/1-11  
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  - 18)\* Morgenstern, M., Pauly, C., Kellner, J., Liebmann, M., Pratzner, M., Bihlmayer, G., Eschbach, M., Plucinski, L., Otto, S., Rasche, B., Ruck, M., **Richter, M.**, Just, S., Lüpke, F., Voigtländer, B., Strong and Weak 3D Topological Insulators Probed by Surface Science Methods, *Physica Status Solidi B - Basic Solid State Physics* 1 258 (2021), S. 2000060/1-14  
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  - 19) Yao, M., Manna, K., Yang, Q., **Fedorov, A.**, Voroshnin, V., Schwarze, V.B., Hornung, J., Chattopadhyay, S., Sun, Z., Guin, S., Wosnitzer, J., Borrmann, H., Shekhar, C., Kumar, N., **Fink, J.**, Sun, Y., Felser, C., Observation of giant spin-split Fermi-arc with maximal Chern number in the chiral topological semimetal  $\text{PtGa}$ , *Nature Communications* 1 11 (2020), S. 2033/1-7  
<https://doi.org/10.1038/s41467-020-15865-x>.
  - 20) Meyer, N., **Geishendorf, K.**, Walowski, J., **Thomas, A.**, Münzenberg, M., Photocurrent measurements in topological insulator  $\text{Bi}_2\text{Se}_3$  nanowires, *Applied Physics Letters* 17 116 (2020), S. 172402/1-5  
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  - 21) **Isaeva, A.**, Ruck, M., Crystal Chemistry and Bonding Patterns of Bismuth-Based Topological Insulators, *Inorganic Chemistry* 6 59 (2020), S. 3437-3451  
<https://doi.org/10.1021/acs.inorgchem.9b03461>.
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#### Editorship of edited volumes

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