LIST OF PUBLICATIONS

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Total number of publications: 201 publications in peer-reviewed journals, including 47 in Physical Review Letters, 91 in Physical Review, 17 in Nature Journals, 3 in PNAS. 5 popular science articles, and 4 book chapters.

Citations: h-index = 51 (Web of Science), 60 (Google scholar), total citations 10070 (Web of Science), 14130 (Google scholar)

Invited talks: 260 invited talks at conferences and colloquia at universities (not counting seminar talks).

LIST OF POPULAR SCIENCE ARTICLES

1. *Elastisch dank einflussreicher Elektronen: In einem kritischen, stark korrelierten System sind Kraft und Auslenkung nirgends proportional*, J. Schmalian, Physik Journal **16**, 24 (2017) [in German].
2. *Superconductivity: a Superlatively Difficult Puzzle*, The SPS-Observer; The Magazine of the Society of Physics Students of the American Institute of Physics, Spring Issue (2017).
3. *Elektronen im Fluss: In Graphen können Elektronen auch hydrodynamisches Verhalten zeigen*, A. D. Mirlin und J. Schmalian, Physik Journal **15**, (2016) [in German].
4. *Supraleitung: Unkonventionell und Komplex*, J. Schmalian, Physik Journal **10**, 37 (2011) [in German].
5. *Failed Theories of Superconductivity*, J. Schmalian, chapter IV in: BCS: 50 Years, Ed. D. Feldman and L. N Cooper, World Scientific (2010). **Featured by Mark Buchanan in: The winner takes it all? Nature Physics 6, 715 (2010)**

LIST OF BOOK CHAPTERS

1. *Interface Superconductivity*, S. Gariglio, M. Scheurer, J. Schmalian, A.M.R.V.L. Monteiro, S. Goswami, A. Caviglia, Chapter 7 in Small Superconductors, ed. A.V. Narlikar, Clarendon Press- Oxford (2016).
2. *Nematic Order and Fluctuations in Iron-Based Superconductors*, U. Karahasanović, R. M. Fernandes and J. Schmalian, Lectures on the physics of strongly correlated systems XIX: Nineteenth training course in the physics of strongly correlated systems, ed. R. Citro and F. Manchini, AIP-Conference Proceedings (2016).
3. *A spin fluctuation model for d-wave superconductivity*, A. V. Chubukov, D. Pines, J. Schmalian, Novel Superconductors Vol. II, ed. K. H. Bennemann, J. B. Ketterson, Springer (2008).
4. *Materials driven Science: from high-T_c to complex adaptive matter*, J. Schmalian and D. Pines, Proceedings of the NATO Advanced Study Institute conference on Soft Condensed Matter: Configurations, Dynamics and Functionality, April 6-16, 1999, Geilo, Norway (1999).

LIST OF PEER-REVIEWED PUBLICATIONS

1. *Strange semimetal dynamics in $SrIrO_3$*, K. Sen, D. Fuchs, R. Heid, K. Kleindienst, K. Wolff, J. Schmalian, and M. Le Tacon, Nature Communications **11**, 4270 (2020).
2. *Z_3-vestigial nematic order due to superconducting fluctuations in the doped topological insulators $Nb_xBi_2Se_3$ and $Cu_xBi_2Se_3$*, C.-w. Cho, J. Shen, J. Lyu, O. Atanov, Q. Chen, S. H. Lee, Y. S. Hor, D. J. Gawryluk, E. Pomjakushina, M. Bartkowiak, M. Hecker, J. Schmalian, and R. Lortz, Nature Communications **11**, 3056 (2020).

3. *Nonlocal hydrodynamic transport and collective excitations in Dirac fluids,* E. I. Kiselev and J. Schmalian, Phys. Rev. B **102**, 245434 (2020).
4. *Quantum critical scaling and holographic bound for transport coefficients near Lifshitz points,* G. A. Inkof, J. M.C. Küppers, J. M. Link, B. Goutéraux, and J. Schmalian, Journal of High Energy Physics **11**, 088 (2020).
5. Band *engineering of Dirac cones in iron chalcogenides*, L. Lauke, R. Heid, M. Merz, T. Wolf, A.-A. Haghighirad, and J. Schmalian, Physical Review B **102**, 054209 (2020).
6. *Transport properties of strongly coupled electron–phonon liquids,* A. Levchenko and J. Schmalian, Annals of Physics **419**, 168218 (2020).
7. Eliashberg equations for an electron–phonon version of the Sachdev–Ye–Kitaev model: Pair breaking in non-Fermi liquid superconductors, D. Hauck, M. J. Klug, I. Esterlis, and J. Schmalian, Annals of Physics **417**, 168120 (2020).
8. *Pairing glue in cuprate superconductors from the self-energy revealed via machine learning,* A. V. Chubukov and J. Schmalian, Physical Review B Rapid Communications **101**, 180510(R) (2020).
9. *Lévy Flights and Hydrodynamic Superdiffusion on the Dirac Cone of Graphene*, E. I. Kiselev and J. Schmalian, Physical Review Letters **123**, 195302 (2019).
10. *Cooper pairing of incoherent electrons: An electron-phonon version of the Sachdev-Ye-Kitaev model,* I. Esterlis and J. Schmalian, Physical Review B **100**, 115132 (2019). **Editors' suggestion**
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14. *Boundary conditions of viscous electron flow,* E. I. Kiselev and J. Schmalian, Physical Review B **99**, 035430 (2019).
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41. *Emergent non-Fermi liquid at the quantum critical point of a topological phase transition in two dimensions*, H. Isobe, B.-J. Yang, A. Chubukov, J. Schmalian, and N. Nagaosa, Physical Review Letters **116**, 076803 (2016).

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61. *Critical scaling analysis of the itinerant ferromagnet $Sr_{1-x}Ca_xRuO_3$* , D. Fuchs, M. Wissinger, J. Schmalian, C.-L. Huang, R. Fromknecht, R. Schneider, and H. v. Löhneysen, Physical Review B **89**, 174405 (2014).

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