

Scanning Probe Methods Group, Prof. Dr. Roland Wiesendanger

Publications: Original Articles

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Subgroup: STM/STS on Semiconductors

Colloquium: Atomic spin chains on surfaces*D.-J. Choi, N. Lorente, J. Wiebe, K. von Bergmann, A. F. Otte, and A. J. Heinrich*, Rev. Mod. Phys. **91** 041001 (2019)**Stabilizing spin systems via symmetrically tailored RKKY interactions***J. Hermenau, S. Brinker, M. Marciari, M. Steinbrecher, M. dos Santos Dias, R. Wiesendanger, S. Lounis, and J. Wiebe*, Nature Communications **10** 2565 (2019)**Engineering the spin couplings in atomically crafted spin chains on an elemental superconductor***A. Kamlapure, L. Cornils, J. Wiebe, and R. Wiesendanger*, Nature Communications **9** 3253 (2018)**Non-collinear spin states in bottom-up fabricated atomic chains***M. Steinbrecher, R. Rausch, K. T. That, J. Hermenau, A. A. Khajetoorians, M. Potthoff, R. Wiesendanger, and J. Wiebe*, Nature Communications **9** 2853 (2018)**Enhanced spin-ordering temperature in ultrathin FeTe films grown on a topological insulator***U. R. Singh, J. Warmuth, A. Kamlapure, L. Cornils, M. Bremholm, Ph. Hofmann, J. Wiebe, and R. Wiesendanger*, Phys. Rev. B **97** 144513 (2018)**Domain imaging across the magneto-structural phase transitions in Fe_{1+y}Te***J. Warmuth, M. Bremholm, P. Hofmann, J. Wiebe, and R. Wiesendanger*, npj Quantum Materials **3** 21 (2018)**Long Spin-Relaxation Times in a Transition-Metal Atom in Direct Contact to a Metal Substrate***Jan Hermenau, Markus Ternes, Manuel Steinbrecher, Roland Wiesendanger, and Jens Wiebe*, Nano Letters **18** 1978 (2018)**Electronic structure of Fe_{1.08}Te bulk crystals and epitaxial FeTe thin films on Bi₂Te₃ & nbsp; & nbsp;***F. Arnold, J. Warmuth, M. Michiardi, J. Fikáček, M. Bianchi, J. Hu, Z. Mao, J. Miwa, U. R. Singh, M. Bremholm, R. Wiesendanger, J. Honolka, T. Wehling, J. Wiebe, and P. Hofmann*, J. Phys.: Condens. Matter **30** (2018)**A gateway towards non-collinear spin processing using three-atom magnets with strong substrate coupling***J. Hermenau, J. Ibañez-Azpiroz, Chr. Hübner, A. Sonntag, B. Baxevanis, K. T. Ton, M. Steinbrecher, A. A. Khajetoorians, M. dos Santos Dias, S. Blügel, R. Wiesendanger, S. Lounis, and J. Wiebe*, Nature Communications **8** 642 (2017)**Nickel: The time-reversal symmetry conserving partner of iron on a chalcogenide topological insulator***M. Vondráček, L. Cornils, J. Minár, J. Warmuth, M. Michiardi, C. Piamonteze, L. Barreto, J. A. Miwa, M. Bianchi, Ph. Hofmann, L. Zhou, A. Kamlapure, A. A. Khajetoorians, R. Wiesendanger, J.-L. Mi, B.-B. Iversen, S. Mankovsky, St. Borek, H. Ebert, M. Schüler, T. Wehling, J. Wiebe, and J. Honolka*, Phys. Rev. B **94** 161114(R) (2016)**Topological insulator homojunctions including magnetic layers: The example of n-type (n-QLs Bi₂Se₃/Mn-Bi₂Se₃) heterostructures***M. Vališka, J. Warmuth, M. Michiardi, M. Vondráček, A. S. Nganku, V. Holý, V. Sechovský, G. Springholz, M. Bianchi, J. Wiebe, P. Hofmann and J. Honolka*, Appl. Phys. Lett. **108** 262402 (2016)**Band-gap engineering by Bi intercalation of graphene on Ir(111)***J. Warmuth, A. Bruix, M. Michiardi, T. Hänke, M. Bianchi, J. Wiebe, R. Wiesendanger, B. Hammer, P. Hofmann, and A. A. Khajetoorians*, Phys. Rev. B **93** 165437 (2016)**Tailoring the chiral magnetic interaction between two individual atoms***A. A. Khajetoorians, M. Steinbrecher, M. Ternes, M. Bouhassoune, M. dos Santos Dias, S. Lounis, J. Wiebe, and R. Wiesendanger*, Nature Communications **7** 10620 (2016)**Absence of a spin-signature from a single Ho adatom as probed by spin-sensitive tunneling***M. Steinbrecher, A. Sonntag, M. dos Santos Dias, M. Bouhassoune, S. Lounis, J. Wiebe, R. Wiesendanger, and A. A. Khajetoorians*, Nature Communications **7** 10454 (2016)**Tunneling into thin superconducting films: Interface-induced quasiparticle lifetime reduction***P. Löptien, L. Zhou, , A. A. Khajetoorians, J. Wiebe, and R. Wiesendanger*, Surf. Sci. **643** 6 (2016)

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