

**Prof. Dr. G. Jakob, publication list  
scientific journals:**

Years: [2019](#), [2018](#), [2017](#), [2016](#), [2015](#), [2014](#), [2013](#), [2012](#), [2011](#), [2010](#),  
[2009](#), [2008](#), [2007](#), [2006](#), [2005](#), [2004](#), [2003](#), [2002](#), [2001](#), [2000](#),  
[1999](#), [1998](#), [1997](#), [1996](#), [1995](#), [1994](#), [1993](#), [1992](#), [1991](#), [1990](#)

- 233) **Harnessing non-local orbital-to-spin conversion of interfacial orbital currents for efficient spin-orbit torques**  
Shilei Ding, Andrew Ross, Dongwook Go, Zengyao Ren, Frank Freimuth, Sven Becker, Fabian Kammerbauer, Jinbo Yang, Gerhard Jakob, Yuriy Mokrousov, Mathias Kläui,  
<https://arxiv.org/abs/2006.03649>
- 232) **Heisenberg Exchange and Dzyaloshinskii-Moriya Interaction in Ultrathin CoFeB Single and Multilayers**  
Tobias Böttcher, Kyujoon Lee, Frank Heussner, Samridh Jaiswal, Gerhard Jakob, Mathias Kläui, Burkard Hillebrands, Thomas Brächer, Philipp Pirro  
submitted to Phys. Rev. B. (2020), <https://arxiv.org/pdf/2006.02690>
- 231) **Impact of Annealing Temperature on Tunneling Magnetoresistance Multilayer Stacks**  
Leo Schnitzspan, Joel Cramer, Jan Kubik, Tareq Tarequzzaman, Gerhard Jakob, and Mathias Kläui,  
IEEE Mag. Lett. **11**, 4503705 (2020), [doi: 10.1109/LMAG.2020.3005381](https://doi.org/10.1109/LMAG.2020.3005381)
- 230) **Phonon Bridge Effect in Superlattices of Thermoelectric TiNiSn/HfNiSn With Controlled Interface Intermixing**  
Sven Heinz, Emigdio Chavez Angel, Maximilian Trapp, Hans-Joachim Kleebe, and Gerhard Jakob,  
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- 229) **Spin-orbit torque driven multi-level switching in He<sup>+</sup> irradiated W-CoFeB-MgO Hall bars with perpendicular anisotropy**  
Xiaoxuan Zhao, Yang Liu, Daoqian Zhu, Mamour Sall, Xueying Zhang, Helin Ma, Jürgen Langer, Berthold Ocker, Samridh Jaiswal, Gerhard Jakob, Mathias Kläui, Weisheng Zhao, and Dafiné Ravelosona,  
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- 228) **Electric-field control of spin-orbit torques in perpendicularly magnetized W/CoFeB/MgO film**  
Mariia Filianina, Jan-Philipp Hanke, Kyujoon Lee, Dong-Soo Han, Samridh Jaiswal, Gerhard Jakob, Yuriy Mokrousov, and Mathias Kläui,  
Phys. Rev. Lett. **124**, 217701 (2020), [doi: 10.1103/PhysRevLett.124.217701](https://doi.org/10.1103/PhysRevLett.124.217701)
- 227) **Current induced chiral domain wall motion in CuIr/CoFeB/MgO thin films with strong higher order spin-orbit torques**  
Franziska Martin, Kyujoon Lee, Alexander Kronenberg, Samridh Jaiswal, Robert Reeve, Mariia Filianina, Sanghyun Ji, Myung-Hwa Jung, Gerhard Jakob, and Mathias Kläui,  
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- 226) **The challenges in realizing an exchange coupled BiFeO<sub>3</sub> – double perovskite ferrimagnet bilayer**  
Sven Becker, Sven Heinz, Mehran Vafaei, Mathias Kläui, and Gerhard Jakob,  
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- 225) **Propagation Length of Antiferromagnetic Magnons Governed by Domain Configurations**  
Andrew Ross, Romain Lebrun, Olena Gomony, Daniel Grave, Asaf Kay, Lorenzo Baldrati, Sven Becker, Alireza Qaiumzadeh, Camilo Ulloa, Gerhard Jakob, Florian Kronast, Jairo Sinova, Rembert Duine, Arne Brataas, Avner Rothschild, and Mathias Kläui,  
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- 224) **Individual skyrmion manipulation by local magnetic field gradients**  
Arianna Casiraghi, Hector Corte-Leon, Mehran Vafaei, Felipe Garcia-Sanchez, Gianfranco Durin, Massimo Pasquale, Gerhard Jakob, Mathias Kläui, and Olga Kazakova,  
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- 223) **Hole Localization in Thermoelectric Half-Heusler (Zr<sub>0.5</sub>Hf<sub>0.5</sub>)Co(SbSn<sub>x</sub>) Thin Films**  
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- 222) **Interfacial Dzyaloshinskii–Moriya interaction and chiral magnetic textures in a ferrimagnetic insulator**  
Shilei Ding, Andrew Ross, Romain Lebrun, Sven Becker, Kyujoon Lee, Isabella Boventer, Souvik Das, Yuichiro Kurokawa, Shruti Gupta, Jinbo Yang, Gerhard Jakob, Mathias Kläui,  
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- 221) **Enhancing domain wall velocity through interface intermixing in W-CoFeB-MgO films with perpendicular anisotropy**  
Xiaoxuan Zhao, Boyu Zhang, Nicolas Vernier, Xueying Zhang, Mamour Sall, Tao Xing, Liza Herrera Diez, Carolyn Hepburn, Lin Wang, Gianfranco Durin, Arianna Casiraghi, Mohamed Belmeguenai, Yves Roussign, Andrei Stashkevich, Salim Mourad Cherif, Jürgen Langer, Berthold Ocker, Samridh Jaiswal, Gerhard Jakob, Mathias Kläui, Weisheng Zhao, and Dafine Ravelosona,  
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- 220) **Antenna-coupled spintronic terahertz emitters driven by a 1550 nm femtosecond laser oscillator**  
U. Nandi, M.S. Abdelaziz, S. Jaiswal, G. Jakob, O. Gückstock, R. Rouzegar, T.S. Seifert, M. Kläui, T. Kampfrath, and S. Preu,  
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- 219) **Enhanced thermoelectric properties of lightly Nb doped SrTiO<sub>3</sub> thin films**  
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- 218) **Thermal skyrmion diffusion used in a reshuffler device**  
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- 217) **Gilbert damping of CoFe-alloys**  
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- 216) **High sensitivity characterization of the nonlinear electric susceptibility of a glass ceramic in the microwave range**  
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- 215) **Tuning of interfacial perpendicular magnetic anisotropy and domain structures in magnetic thin film multilayers**  
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- 214) **Impact of pump wavelength on terahertz emission of a cavity-enhanced spintronic trilayer**  
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- 213) **Microstructure design for fast lifetime measurements of magnetic tunneling junctions**,  
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- 212) **Determining the Magnetite/Maghemite Composition and Core-Shell Nanostructure from Magnetization Curve for Iron Oxide Nanoparticles**  
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- 211) **High-Performance Flexible Magnetic Tunnel Junctions for Smart Miniaturized Instruments**  
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- 210) **Large modulation of perpendicular magnetic anisotropy in a BiFeO<sub>3</sub>/Al<sub>2</sub>O<sub>3</sub>/Pt/Co/Pt multiferroic heterostructure via spontaneous polarizations**  
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- 209) **Subamorphous thermal conductivity of crystalline half-Heusler superlattices**,  
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- 208) **Terahertz spectroscopy for all-optical spintronic characterization of the spin-Hall-effect metals Pt, W and Cu<sub>80</sub>Ir<sub>20</sub>**  
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- 207) **Femtosecond formation dynamics of the spin Seebeck effect revealed by terahertz spectroscopy**  
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- 206) **Magnetic Exchange Interaction in Nitronyl Nitroxide Radical-Based Single Crystals of 3d Metal Complexes: A Combined Experimental and Theoretical Study**,  
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- 205) **Complex THz and DC inverse spin Hall effect in YIG/Cu<sub>1-x</sub>Ir<sub>x</sub> bilayers across a wide concentration range**,  
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- 204) **Combined Experimental and Theoretical Investigation of Heating Rate on Growth of Iron Oxide Nanoparticles**  
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- 202) **Alloy-like behaviour of the thermal conductivity of nonsymmetric superlattices**  
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- 200) **Investigation of the Dzyaloshinskii-Moriya interaction and room temperature skyrmions in W/CoFeB/MgO thin films and microwires**  
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- 199) **Probing ultrafast changes of a vertical spin density profile with resonant XUV**  
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- 198) **Synergy of Miniemulsion and Solvothermal Conditions for the Low Temperature Crystallization of Magnetic Nanostructured Transition Metal Ferrites**  
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- 197) **Ultrabroadband single-cycle terahertz pulses with peak fields of 300 kV cm<sup>-1</sup> from a metallic spintronic emitter**  
Tom Seifert, Samridh Jaiswal, Mohsen Sajadi, Gerhard Jakob, Stephan Winnerl, Martin Wolf, Mathias Kläui, and Tobias Kampfrath,  
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- 196) **Reconstruction of an effective magnon mean free path distribution from spin Seebeck measurements in thin films**  
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- 195) **CADEM - Calculate X-ray Diffraction of Epitaxial Multilayers**  
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- 194) **Influence of Thickness and Interface on the Low-Temperature Enhancement of the Spin Seebeck Effect in YIG Films**  
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- 193) **Quantitative analysis of magnetization reversal in Ni thin films on unpoled and poled (011) [PbMg<sub>1/3</sub>Nb<sub>2/3</sub>O<sub>3</sub>]<sub>0.68</sub>–[PbTiO<sub>3</sub>]<sub>0.32</sub> piezoelectric substrates**  
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- 192) **Tailoring of the electrical and thermal properties using ultra-short period non-symmetric superlattices**  
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- 191) **Modification of magnetic anisotropy in Ni thin films by poling of (011) PMN-PT piezosubstrates**  
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- 190) **Efficient metallic spintronic emitters of ultrabroadband terahertz radiation**  
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- 189) **Influence of the MgO barrier thickness on the lifetime characteristics of magnetic tunneling junctions for sensors**  
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- 188) **Half-Heusler superlattices as model systems for nanostructured thermoelectrics**  
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- 187) **The effect of interface roughness on exchange bias in La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> - BiFeO<sub>3</sub> heterostructures**  
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- 185) **Thermal generation of spin current in epitaxial CoFe<sub>2</sub>O<sub>4</sub> films**  
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- 184) **Qualitative comparative analysis of MgB<sub>2</sub> powder-in-tube wires: superconductivity and X-ray cone-beam microtomography**  
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- 182) **Thermal conductance of thin film YIG determined using Bayesian statistics**  
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- 181) **Length scale of the spin Seebeck effect**  
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- 180) **Enhanced Magneto-optic Kerr Effect and Magnetic Properties of CeY<sub>2</sub>Fe<sub>5</sub>O<sub>12</sub> Epitaxial Thin Films**  
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- 179) **Thermoelectric sintered glass-ceramics with a Bi<sub>2</sub>Sr<sub>2</sub>Co<sub>2</sub>O<sub>x</sub> phase**  
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- 178) **Investigations on Ni-Co-Mn-Sn thin films: Effect of substrate temperature and Ar gas pressure on the martensitic transformations and exchange bias properties**  
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