

List of Publications

Daniel Schick

October 17, 2016

- [1] **D. Schick**, S. Eckert, N. Pontius, R. Mitzner, A. Föhlisch, K. Holldack and F. Sorgenfrei. “Versatile soft X-ray-optical cross-correlator for ultrafast applications”. *Struct. Dyn.* **3**, 054304 (2016).
- [2] V. Iurchuk, **D. Schick**, J. Bran, D. Colson, A. Forget, D. Halley, A. Koc, M. Reinhardt, C. Kwamen, N. Morley, M. Bargheer, M. Viret, R. Gumeniuk, G. Schmerber, B. Doudin and B. Kundys. “Optical Writing of Magnetic Properties by Remanent Photostriction”. *Phys. Rev. Lett.* **117**, 107403 (2016).
- [3] **D. Schick**, L. Le Guyader, N. Pontius, I. Radu, T. Kachel, R. Mitzner, T. Zeschke, C. Schüßler-Langeheine, A. Föhlisch and K. Holldack. “Analysis of the halo background in femtosecond slicing experiments”. *Journal of Synchrotron Radiation* **23** (2016).
- [4] **D. Schick**, M. Herzog, A. Bojahr, W. Leitenberger, A. Hertwig, R. Shayduk and M. Bargheer. “Ultrafast lattice response of photoexcited thin films studied by X-ray diffraction”. *Structural Dynamics* **1** (2014).
- [5] **D. Schick**, M. Herzog, H. Wen, P. Chen, C. Adamo, P. Gaal, D. G. Schlom, P. G. Evans, Y. Li and M. Bargheer. “Localized Excited Charge Carriers Generate Ultrafast Inhomogeneous Strain in the Multiferroic BiFeO₃”. *Phys. Rev. Lett.* **112**, 097602 (2014).
- [6] P. Gaal, **D. Schick**, M. Herzog, A. Bojahr, R. Shayduk, J. Goldshteyn, W. Leitenberger, I. Vrejoiu, D. Khakhulin, M. Wulff and M. Bargheer. “Ultrafast switching of hard X-rays”. *J. Synchrotron Radiat.* **21**, 380 (2014).
- [7] **D. Schick**, A. Bojahr, M. Herzog, R. Shayduk, C. von Korff Schmising and M. Bargheer. “udkm1Dsim—A simulation toolkit for 1D ultrafast dynamics in condensed matter”. *Comput. Phys. Commun.* **185**, 651 (2014).
- [8] A. Bojahr, M. Herzog, S. Mitzscherling, L. Maerten, **D. Schick**, J. Goldshteyn, W. Leitenberger, R. Shayduk, P. Gaal and M. Bargheer. “Brillouin scattering of visible and hard X-ray photons from optically synthesized phonon wavepackets”. *Opt. Express* **21**, 21188 (2013).
- [9] J. Goldshteyn, A. Bojahr, P. Gaal, **D. Schick** and M. Bargheer. “Selective preparation and detection of phonon polariton wavepackets by stimulated Raman scattering”. *Phys. status solidi (b)* (2013).

- [10] H. A. Navirian, **D. Schick**, P. Gaal, W. Leitenberger, R. Shayduk and M. Bargheer. "Thermoelastic study of nanolayered structures using time-resolved x-ray diffraction at high repetition rate". *Appl. Phys. Lett.* **104**, 021906 (2013).
- [11] **D. Schick**, R. Shayduk, A. Bojahr, M. Herzog, C. von Korff Schmising, P. Gaal and M. Bargheer. "Ultrafast reciprocal-space mapping with a convergent beam". *J. Appl. Crystallogr.* **46**, 1372 (2013).
- [12] R. Shayduk, M. Herzog, A. Bojahr, **D. Schick**, P. Gaal, W. Leitenberger, H. Navirian, M. Sander, J. Goldshteyn, I. Vrejoiu and M. Bargheer. "Direct time-domain sampling of subterahertz coherent acoustic phonon spectra in SrTiO₃ using ultrafast x-ray diffraction". *Phys. Rev. B* **87**, 184301 (2013).
- [13] **D. Schick**, A. Bojahr, M. Herzog, P. Gaal, I. Vrejoiu and M. Bargheer. "Following Strain-Induced Mosaicity Changes of Ferroelectric Thin Films by Ultrafast Reciprocal Space Mapping". *Phys. Rev. Lett.* **110**, 095502 (2013).
- [14] A. Bojahr, M. Herzog, **D. Schick**, I. Vrejoiu and M. Bargheer. "Calibrated real-time detection of nonlinearly propagating strain waves". *Phys. Rev. B* **86**, 144306 (2012).
- [15] A. Bojahr, **D. Schick**, L. Maerten, M. Herzog, I. Vrejoiu, C. von Korff Schmising, C. Milne, S. L. Johnson and M. Bargheer. "Comparing the oscillation phase in optical pump-probe spectra to ultrafast x-ray diffraction in the metal-dielectric SrRuO₃/SrTiO₃ superlattice". *Phys. Rev. B* **85**, 224302 (2012).
- [16] P. Gaal, **D. Schick**, M. Herzog, A. Bojahr, R. Shayduk, J. Goldshteyn, H. A. Navirian, W. Leitenberger, I. Vrejoiu, D. Khakhulin, M. Wulff and M. Bargheer. "Time-domain sampling of x-ray pulses using an ultrafast sample response". *Appl. Phys. Lett.* **101**, 243106 (2012).
- [17] M. Herzog, **D. Schick**, W. Leitenberger, R. Shayduk, R. M. van der Veen, C. J. Milne, S. L. Johnson, I. Vrejoiu and M. Bargheer. "Tailoring interference and nonlinear manipulation of femtosecond x-rays". *New J. Phys.* **14**, 13004 (2012).
- [18] C. Mihoc, **D. Schick**, M. Lütgens, C. Lathe and E. Burkel. "Formation of Al₆₇Cu₂₃Fe₁₀ quasicrystals by microwave heating". *Int. J. Mater. Res.* **103**, 1340 (2012).
- [19] **D. Schick**, A. Bojahr, M. Herzog, C. von Korff Schmising, R. Shayduk, W. Leitenberger, P. Gaal and M. Bargheer. "Normalization schemes for ultrafast x-ray diffraction using a table-top laser-driven plasma source." *Rev. Sci. Instrum.* **83**, 25104 (2012).
- [20] M. Herzog, **D. Schick**, P. Gaal, R. Shayduk, C. Korff Schmising and M. Bargheer. "Analysis of ultrafast X-ray diffraction data in a linear-chain model of the lattice dynamics". *Appl. Phys. A* **106**, 489 (2011).
- [21] **D. Schick**, C. von Korff Schmising, A. Bojahr, M. Kiel, P. Gaal and M. Bargheer. "Time-Resolved X-Ray Scattering". In K.-T. Tsen, J.-J. Song, M. Betz and A. Y. Elezabi (Eds.), *Ultrafast Phenom. Semicond. Nanostructure Mater.* XV, vol. 7937, 793715–793715–10 (2011).