

## Prof. Dr. Frithjof Nolting

### List of Publications, August 2017

139 refereed papers which have been cited more than 5500 times

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### Publications in refereed journals

- (1) **The EIGER detector for low energy electron microscopy and photo-emission electron microscopy**, Gemma Tinti, Helder Marchetto, Carlos Vaz, Armin Kleibert, Marie Andrae, Rebecca Barten, Anna Bergamaschi, Martin Brueckner, Sebastian Cartier, Roberto Dinapoli, Torsten Franz, Erik Froejdh, Dominic Greiffenberg, Carlos Lopez-Cuenca, Davide Mezza, Aldo Mozzanica, *Frithjof Nolting*, Marco Ramilli, Sophie Redford, Marie Ruat, Christian Ruder, Lukas Schaedler, Thomas Schmidt, Bernd Schmitt, Florian Schuetz, Xintian Shi, Dhanya Thattil, Seraphin Vetter and Jiaguo Zhang, *J. Synchrotron Rad.* accepted (2017).
- (2) **The difference between electron yield and fluorescence yield X-ray magnetic circular dichroism derived sum rule values**, Boyang Liu, Cinthia Piamonteze, Mario Ulises Delgado-Jaime, Ru-Pan Wang, Jakoba Heidler, Jan Dreiser, Rajesh Chopdekar, *Frithjof Nolting*, and Frank M. F. de Groot, *Phys. Rev. B*, accepted (2017).
- (3) **Single-shot Monitoring of Ultrafast Processes via X-ray Streaking at a Free Electron Laser**, Michele Buzzi, Mikako Makita, Ludovic Howald, Armin Kleibert, Boris Vodungbo, Pablo Maldonado, Jörg Raabe, Nicolas Jaouen, Harald Redlin, Kai Tiedtke, Peter M. Oppeneer, Christian David, *Frithjof Nolting*, and Jan Lüning, *Scientific Reports* 7, 7253 (2017). <http://rdcu.be/uJgZ>
- (4) **Direct observation of enhanced magnetism in individual size- and shape-selected 3d transition metal nanoparticles**, Armin Kleibert, Ana Balan, Rocio Yanes, Peter M. Derlet, C. A. F. Vaz, Martin Timm, Arantxa Fraile Rodríguez, Armand Béch , Jo Verbeeck, R. S. Dhaka, Milan Radovic, Ulrich Nowak, and *Frithjof Nolting*, *Phys. Rev. B* 95, 195404 (2017).
- (5) **Magneto-electroelastic control of magnetism in an artificial multiferroic**, J. Heidler, M. Fechner, R. V. Chopdekar, C. Piamonteze, J. Dreiser, C. A. Jenkins, E. Arenholz, S. Rusponi, H. Brune, N. A. Spaldin, and *F. Nolting*, *Phys. Rev. B* 94, 014401 (2016)
- (6) **Giant reversible anisotropy changes at room temperature in a (La,Sr)MnO<sub>3</sub>/Pb(Mg,Nb,Ti)O<sub>3</sub> magneto-electric heterostructure**, Rajesh Vilas Chopdekar, Michele Buzzi, Catherine Jenkins, Elke Arenholz, *Frithjof Nolting*, and Yayoi Takamura, *Scientific Reports*, 6:27501 (2016)
- (7) **Deterministic character of all-optical magnetization switching in GdFe-based ferrimagnetic alloys**, L. Le Guyader, S. El Moussaoui, M. Buzzi, M.

- Savoini, A. Tsukamoto, A. Itoh, A. Kirilyuk, Th. Rasing, *F. Nolting*, and A. V. Kimel, *Phys. Rev. B* **93**, 134402 (2016)
- (8) **Effect of substrate interface on the magnetism of supported iron nanoparticles**, A. Balan, A. Fraile Rodríguez, C.A.F. Vaz, A. Kleibert, *F. Nolting*, *Ultramicroscopy* **159**, 513 (2015).
  - (9) **Electric field stimulation setup for photoemission electron microscopes**, M. Buzzi, C. A. F. Vaz, J. Raabe, and *F. Nolting*, *Rev. Sci. Instrum.* **86**, 083702 (2015).
  - (10) **Interfacial properties of LaMnO<sub>3</sub>/LaNiO<sub>3</sub> superlattices grown along (001) and (111) orientations**, C. Piamonteze, M. Gibert, J. Heidler, J. Dreiser, S. Rusponi, H. Brune, J.-M. Triscone, *F. Nolting*, and U. Staub, *Phys. Rev. B* **92**, 014426 (2015).
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  - (12) **Nanoscale sub-100 picosecond all-optical magnetization switching in GdFeCo microstructures**, L. Le Guyader, M. Savoini, S.E. Moussaoui, M. Buzzi, A. Tsukamoto, A. Itoh, A. Kirilyuk, T. Rasing, A.V. Kimel, and *F. Nolting*, *Nat. Commun.* **6**, 5839 (2015).
  - (13) **Manipulating magnetism in La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> via piezostrain**, J. Heidler, C. Piamonteze, R. V. Chopdekar, M. A. Uribe-Laverde, A. Alberca, M. Buzzi, A. Uldry, B. Delley, C. Bernhard, and *F. Nolting*, *Phys. Rev. B* **91**, 024406 (2015).
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  - (17) **Thermally Induced Magnetic Relaxation in Building Blocks of Artificial Kagome Spin Ice**, Alan Farhan, Armin Kleibert, Peter M. Derlet, Luca Anghinolfi, Ana Balan, Rajesh V. Chopdekar, Marcus Wyss, Sebastian Gliga, *Frithjof Nolting*, and Laura J. Heyderman, *Phys. Rev. B* **89**, 214405 (2014).

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- (19) **Direct observation of temperature dependent magnetic domain structure of the multiferroic La<sub>0.66</sub>Sr<sub>0.34</sub>MnO<sub>3</sub>/BiFeO<sub>3</sub> bilayer system by x-ray linear dichroism- and x-ray magnetic circular dichroism-photoemission electron microscopy**, C. Mix, S. Finizio, M. Buzzi, F. Kronast, *F. Nolting*, G. Jakob, and M. Kläui, *J. Appl. Phys.* **115**, 193901 (2014).
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- (23) **Direct Observation of Magnetic Metastability in Individual Iron Nanoparticles**, A. Balan, P. M. Derlet, A. Fraile Rodríguez, J. Bansmann, R. Yanes, U. Nowak, A. Kleibert, and *F. Nolting*, *Phys. Rev. Lett.* **112**, 107201 (2014).
- (24) **Extended reciprocal space observation of artificial spin ice with x-ray resonant magnetic scattering**, J. Perron, L. Anghinolfi, B. Tudu, N. Jaouen, J.-M. Tonnerre, M. Sacchi, *F. Nolting*, J. Lüning, and L. J. Heyderman, *Phys. Rev. B* **88**, 214424 (2013).
- (25) **Origin of interface magnetism in BiMnO<sub>3</sub>/SrTiO<sub>3</sub> and LaAlO<sub>3</sub>/SrTiO<sub>3</sub> heterostructures**, M. Salluzzo, S. Gariglio, D. Stornaiuolo, V. Sessi, S. Rusponi, C. Piamonteze, G. M. De Luca, M. Minola, D. Marré, A. Gadaleta, H. Brune, *F. Nolting*, N. B. Brookes, and G. Ghiringhelli, *Phys. Rev. Lett.* **111**, 087204 (2013).
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- (28) **A new endstation at the Swiss Light Source for ultraviolet photoelectron spectroscopy, X-ray photoelectron spectroscopy, and X-ray absorption spectroscopy measurements of liquid solutions**, Matthew A. Brown, Amaia Beloqui Redondo, Inga Jordan, Nicolas Duyckaerts, Ming-Tao Lee, Markus Ammann, *Frithjof Nolting*, Armin Kleibert, Thomas Huthwelker, Jean-Pierre Mächler, Mario Birrer, Juri Honegger, Reto Wetter, Hans Jakob Wörner, and Jeroen A. van Bokhoven, *Rev. Sci. Instrum.* **84**, 073904 (2013).
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