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List of Publications, April 2020

151 refereed papers which have been cited more than 7000 times
Full list at: https://www.psi.ch/lsc/frithjof-nolting
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Invited talks at workshops and conferences

- **Magnetizations Dynamics Studied with Synchrotron and X-FEL Radiation** Sino-Swiss Workshop, Dongguan, China, 26-27 November 2019
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- **A close look at magnetic multilayers and nanomagnets with X-ray magnetic dichroism,** International workshop on Polarized Neutrons and Synchrotron X-rays for Magnetism, Bonn, Germany, August 2.-5. 2009.
- **A close Look at Nanomagnets Using Spectromicroscopy**, Materials Research Society, Spring Meeting 2008, San Francisco, USA, March 24 – 28, 2008.
- **Probing Magnetism on the Nanoscale using Photoemission Electron Microscopy**, International Symposium "Spin Waves 2007", St. Petersburg, Russia, June 17-20.
- **A spectromicroscopic study of antiferromagnetic domains,** Workshop on magnetism and synchrotron radiation, Strasbourg, France, 6/7. 11. 2006.
- **A users viewpoint: absorption spectroscopy at a synchrotron**, 3rd International Workshop on Beam Orbit Stabilization, Grindelwald, Switzerland, 6-10 December 2004.
- **Study of Ferromagnet-Antiferromagnet Interfaces Using X-Ray PEEM**, International Workshop on X-ray Spectroscopies of Magnetic Solids 2002, December 8-9, 2002, Dresden, Germany.
- **Spectromicroscopy Studies of Ferromagnet-Antiferromagnet Interfaces Using Polarization Dependent PEEM**, European Materials Research Society, Spring Meeting 2002, June 18-21, 2002, Strasbourg, France, Symposia Synchrotron Radiation and Materials Science.
- **A Close Look at Antiferromagnetic/Ferromagnetic Interfaces - A Spectromicroscopy Study using PEEM**, Workshop on Surfaces and Interfaces on the Atomic- and Nano-Scale, February 14-15, 2002, Grenoble, France.
- **Exploring the ferromagnetic-antiferromagnetic interface using PEEM**, Thirteenth International Conference on Vacuum Ultraviolet Radiation Physics, Trieste, Italy, 23.-27.7.2001.
- **Spectromicroscopy studies of ferromagnet – antiferromagnet interfaces using photoelectron emission microscopy**, 3rd international SLS workshop, Les Diablerets, Switzerland, October 2000.
- **A value for G from beam-balance experiments**, Conference about "The Gravitational Constant: Theory and experiment 200 years after Cavendish", London, UK, November 1998.

Tutorials at workshops and schools

- **Nanomagnetism**, 7th MaNEP Winter School, Saas-Fee, January 8–13 2017.
- **Nanomagnete als Modellsysteme**, SPG-Lehrerfortbildung für Physiklehrer 2014, Villigen PSI, 28. – 29. 11. 2014

- **Catching the moment – magnetization dynamics studied with X-ray microscopy**, 11th PSI summer school on Condensed Matter Research, Zug, Switzerland, 11.8-17.8.2012.
- **X-ray and synchrotron characterization**, IFOX summer school, Gündolfingen, Germany, 27.9 – 3.8. 2012.
- **A close look at magnetic nanoparticles and multilayers with spectromicroscopy,** Workshop Nanoscience in the Snow 2011, Les Diablerets, Switzerland, January 19.-21. 2011.
- **XAS and polarized X-rays – a good match for the study of magnetic materials**, MaNEP Workshop on Resonant X-ray Techniques, Paul Scherrer Institut, Villigen, Switzerland, 2.11.2010.
- **Magnetic Imaging**, 5th International School on Magnetism and Synchrotron Radiation, Mittelwihr, France, October 19-24 2008.
- **X-Ray Dichroism – a powerful tool for the study of magnetic materials**, 6th PSI Summer School on Condensed Matter Research, Zuoz, Switzerland, August 19-24, 2007.
- **Probing magnetism on the nanoscale using photoemission electron microscopy**, 4th PSI Summer School on Condensed Matter Research, Zuoz Switzerland, August 14-21, 2005.

Invited talks at seminars and colloquiums

- **Enlighten insights by X-ray flashes and Synchrotron light**, Symposium "Theo Rasing 50 years in science and the EEX Workshop", University Nijmegen, The Netherlands, 12. – 14. October 2020
- **Investigating with a single X-ray pulse the entire early time period of fs laser induced ultrafast magnetization dynamics – DIPROI**, Seminar, Elettra Laboratory, Italy, 11.5.2016.
- **Nanomagnets and artificial multiferroics studied with X-ray photoemission electron microscopy**, Seminar, MaxLabIV, Lund, Sweden, 11. June 2015.
- **A close look at magnetic multilayers and nanomagnets with X-ray microscopy,** Colloquium SFB668, Hamburg, Germany, 12. July 2011.
- **Twisting Magnetic Nanoparticles and Kicking Ferromagnets Studied with X-ray Spectromicroscopy**, Physikalisches Kolloquium TU Kaiserslautern, Germany, 23.5.2011.
- **Kicking a ferromagnet – magnetization dynamics probed with X-ray microscopy**, Seminar Physics Department University of Uppsala, Sweden, December 2nd 2010.
- **Seeing the "invisible" with X-rays – A close look at magnetic multilayers and individual nanocrystals with spectromicroscopy**, Symposium, Physics Institute, University Basel, Switzerland, 10.-11. September 2008.
- **A close Look at Nanomagnets Using Spectromicroscopy**, Seminar, Physics Institute, University Basel, Switzerland, 5.5.2008.
- **Seeing the "invisible" with X-rays – Probing antiferromagnets and individual nanoclusters with spectromicroscopy**, Colloquium, Max-Planck-Institut für Metallforschung, Stuttgart, Germany, 28. 4. 2008.
- **A close look at antiferromagnetic domains using spectromicroscopy**, Seminar, Physcis Institute, University Nijmegen, The Netherlands, 20.1.2006.

- **Studing antiferromagnetic domains using Photoemission Electron Microscopy**, Seminar, Physics Institute, University Konstanz, Germany, 27.1.2006.
- **A Close Look At Antiferromagnetic/Ferromagnetic Interfaces – A Spectromicroscopy Study Using PEEM**, Seminar, Technical University Braunschweig, Germany, 29.5.2002.
- **Magnetische Grenzschichten - Neue Einblicke durch Spektromikroskopie am Synchrotron**, Seminar in Experimental Physics, University of Zurich, Switzerland, 15.05.2002.
- **A close look at antiferromagnetic / ferromagnetic interfaces – A spectromicroscopy study using PEEM**, Seminar, Max-Planck-Institut für Metallforschung, Stuttgart, Germany, 8. 2. 2002.
- **Spectromicroscopy studies of magnetic multilayers using polarization dependent PEEM**, Seminar in Experimental Physics, University of Zurich, Switzerland, 31.05.2001.
- **Synchrotron radiation applications in solid state physics**, Seminar, IBM Rüschlikon, Switzerland, 4.12.2001.
- **How strong is gravity? A new experiment using a comparator balance**, Mettler-Toledo, Greifensee, Switzerland, October 1998.
- **How strong is gravity? A new experiment using a comparator balance**, Seminar of the Swiss Federal Office of Metrology, Wabern, Switzerland, May 1998.

Contributed presentations at conferences and workshops

- Over 40 contributed talks and poster presentations at workshops and conferences.

Publications at international conferences and in not refereed journals

- **Investigating individual Fe50Co50 alloy nanoparticles using Xray photo-emission electron microscopy**, A. Kleibert, A. Balan, A. Fraile Rodríguez, and *F. Nolting*, J of Physics: Conference Series 521, 012003 (2014).
- **XMCD study of the magnetic exchange coupling in a fluoride-bridged Dy-Cr molecular cluster**, Jan Dreiser, Cinthia Piamonteze, *Frithjof Nolting*, Kasper S. Pedersen, Jesper Bendix, Stefano Rusponi, Harald Brune, Journal of the Korean Physical Society **62**, 1368 (2013).
- **Formation of magnetic domains and domain walls in epitaxial Fe_3O_4(100) elements (invited)**, M. Fonin, C. Hartung, U. Rüdiger, D. Backes, L. Heyderman, *F. Nolting*, A. Fraile Rodríguez, and M. Kläui, J. App. Phys. **109**, 07D315 (2011).
- **Discovering size-dependent spin structures in iron nanoparticles using soft X-ray microscopy**, Armin Kleibert, Arantxa Fraile Rodríguez, *Frithjof Nolting*, Joachim Bansmann, Andris Voitkans, Laura Jane Heyderman, PSI scientific report (2010).
- **Travelling monopoles tread a Dirac string path**, Laura Heyderman, Elena Mengotti, Arantxa Fraile Rodríguez, *Frithjof Nolting*, Remo Hügli, Hans-Benjamin Braun, PSI scientific report (2010).

- **Field effect controlled ferromagnetism in transition metal doped ZnO**, E. Bellingeri, L. Pellegrino, M. Biasotti, I. Pallecchi, G. Canu, A. Gerbi, M. Vignolo, A.S. Siri, D. Marré,S. Rusponi, A. Lehnert, *F. Nolting*, Proc. of SPIE **6895**, 68950X (2008).
- **Direct imaging of current-induced domain wall motion in CoFeB structures**, L. Heyne, M. Kläui, D. Backes, P. Möhrke, T. A. Moore, J. G. Kimling, O. Boulle, U. Rüdiger, L. J. Heyderman, A. Fraile Rodríguez, *F. Nolting*, K. Kirsch, and R. Mattheis, J. App. Phys. 103, 07D928 (2008).
- **Magnetism under the spotlight**, Laura Heyderman, Dirk Backes, Arantxa Fraile Rodríguez, *Frithjof Nolting*, Mathias Kläui, Ulrich Rüdiger, and Luis Lopez Diaz, PSI scientific report (2006).
- **Induced magnetic ordering in a molecular monolayer,** Andreas Scheybal, Trond Ramsvik, Rolf Bertschinger, Magali Putero, Frithjof Nolting, and Thomas A. Jung, PSI scientific report (2005).
- **The antiferromagnetic spin axis of individual domains in $LaFeO_3$,** S. Czekaj, *F. Nolting*, L.J. Heyderman, P.R. Willmott, M. Horisberger, and G. van der Laan, PSI scientific report (2005).
- **Fabrication of Nanoscale Antidot Arrays and Magnetic Observations Using X-ray Photoemission Electron Microscopy,** L. J. Heyderman, H. H. Solak, *F. Nolting* and C. Quitmann, J. Appl. Phys. 95, 6651 (2004).
- **Magnetic imaging with soft X-ray microscopies**, P. Fischer, G. Denbeaux, H. Stoll, A Puzic, J. Raabe, *F. Nolting*, T. Eimüller, G. Schütz, Journal de Physique IV 104, 471 (2003).
- **Miniature Magnetic Designers,** *F. Nolting* and L.J. Heyderman, PSI Annual Report, General Volume (2003).
- **Uncompensated Spins in Antiferromagnetic $La(FeNi)O_3$ coupled to Co**, J.W. Seo, *F. Nolting*, T. Ramsvik, J.-P. Locquet, and J. Fompeyrine, SYN annex (2003).
- **PEEM Measurement of $LaFeO_3$ Thin Films and Structures**, S. Czekaj, *F. Nolting,* L. Heyderman, P.R. Willmott, M. Horisberger, and T. Rebac, SYN annex (2003).
- **PEEM Investigation of Magnetic Thin Film Antidot Arrays**, *F. Nolting*, L.J. Heyderman, H.H. Solak, C. Quitmann, and M. Horisberger, SYN annex (2003).
- **Magnetic Domain Investigation at the Spin Reorientation Transition in Co/Ni Bilayers on Cu(001),** W. Kuch, K. Fukumoto, J. Wang, J. Kirschner, *F. Nolting,* T. Ramsvik, and C. Quitmann, SYN annex (2003).
- **PEEM Imaging of Antiferromagnetic Domain Walls in Single Crystalline Nickel Oxide**, I. P. Krug, F. U. Hillebrecht, and *F. Nolting*, SYN annex (2003).
- **Magnetic Interaction between a Magnetized Substrate and Adsorbed Organic Molecules Probed by XMCD**, A. Scheybal, T. Ramsvik, R. Bertschinger, M. Putero-Vuaroqueaux, P. Morf, C. Vanoni, R. Schelldorfer, *F. Nolting*, and T.A. Jung, SYN annex (2003).
- **Nanoscale Ferromagnetic Rings**, L.J. Heyderman, *F. Nolting*, C. David, C. Quitmann, F. Glaus, T. Neiger, B. Nöhammer, M. Kläui, Y.-G. Yoo, J. Rothman, C.A.F. Vaz, S. Steinmüller, and J.A.C. Bland, SYN annex (2003).
- **Nanoscale Magnetic Dots Fabricated by X-ray Interference Lithography,** L.J. Heyderman, H.H. Solak, *F. Nolting*, R. Schelldorfer, C. Quitmann, and C.David, SYN annex (2003).

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- **Soft X-ray absorption spectroscopy of single nanocrystals,** *F. Nolting*, J. Rockenberger, J. Lüning, J. Hu, and A. P. Alivisatos, ALS Compendium (2001).
- **PEEM measurement of Microstructured NiO thin films,** *F. Nolting*, L. Heyderman, and P.R. Willmott, SLS annex (2001).
- **Uncompensated spins in antiferromagnetic NiO coupled to a ferromagnet**, *F. Nolting*, H. Ohldag, E. Arenholz, A. Scholl, A.T. Young, and J. Stöhr, SLS annex (2001).
- **X-ray spectromicroscopy studies of protein-polymer interactions**, A.P. Hitchcock, T. Tyliszczak, Y.M. Heng, R. Cornelius, J.L. Brash, H. Ade, S. Anders, A. Scholl, *F. Nolting*, AIP Conf. Proc. 507, 235 (2000).
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