

Polarized Neutrons and Synchrotron X-Rays for Magnetism Conference 2009

(PNSXM 2009)

**Satellite Conference of the ICM 2009
Journal of Physics: Conference Series Volume 211**

**Bonn, Germany
2-5 August 2009**

ISBN: 978-1-61738-266-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2009) by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2010)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

COMPLEX BULK MAGNETISM: FROM MULTIFERROICS TO FRUSTRATED MAGNETISM

Polarized-neutron-scattering Studies on the Chiral Magnetism in Multiferroic MnWO₄	1
<i>T Finger, D Senff, K Schmalzl, W Schmidt, L P Regnault, P Becker, L Bohatý, M Braden</i>	
FeTe₂O₅Br System: New Ferroelectric with an Incommensurate Spin Modulation	9
<i>O Zaharko, M Pregelj, D Arcon, P J Brown, D Chernyshov, U Stuhr, H Berger</i>	
Advanced Resonant Soft X-ray Diffraction to Study Ordering Phenomena in Magnetic Materials	15
<i>Urs Staub</i>	
Little Volume Change in Orbital Ordering Transition in Manganite Thin Films	23
<i>Yusuke Wakabayashi, Hiroshi Sawa, Naoko Takubo, Masao Nakamura, Yasushi Ogimoto, Kenjiro Miyano</i>	
Exchange-striction Associated with the Elliptical Proper Helical Magnetic Structure in the Ferroelectric Phase of CuFe_{1-y}Ga_yO₂	29
<i>N Terada, T Nakajima, S Mitsuda, M Matsuda, K Kakurai, Y Tanaka, H Kitazawa</i>	
X-ray Resonant Scattering Study of the Incommensurate Charge-orbital Density Wave in La₂- _{2x}Sr_{1+2x}Mn₂O₇ (x = 0.7)	35
<i>T A W Beale, S R Bland, P D Hatton, P Thompson, D Prabhakaran, A T Boothroyd</i>	
Soft X-ray Diffraction from Lattice Constrained Orbital Order in Pr(Sr_{0.1}Ca_{0.9})₂Mn₂O₇	40
<i>T A W Beale, S R Bland, R D Johnson, P D Hatton, J C Cezar, S S Dhesi, D Prabhakaran, A T Boothroyd</i>	
Dipole-quadrupole Spherical Tensors in Resonant X-ray Diffraction	44
<i>Sergio Di Matteo</i>	
Resonant X-ray Scattering and Full Polarisation Analysis of Forbidden Half-integer Reflections in Magnetite	52
<i>S R Bland, B Delffs, S B Wilkins, T A W Beale, C Mazzoli, Y Joly, P D Hatton, J E Lorenzo, S D Brown, V A M Brabers</i>	
Resonant Magnetic X-ray Diffraction Study on the Successive Metamagnetic Transitions of TbB₄ Up to 30 T	57
<i>T Inami, K Ohwada, Y H Matsuda, Z W Ouyang, H Nojiri, T Matsumura, D Okuyama, Y Murakami</i>	
Neutron Diffraction and X-ray Magnetic Circular Dichroism Studies of the Co₂SiO₄ Magnetic Properties	63
<i>Andrew Sazonov, Vladimir Hutanu, Martin Meven, Gernot Heger, Arsen Gukasov, Andrei Rogalev</i>	
Principal Interactions in the Helimagnetic System Mn_{1-y}Fe_ySi	69
<i>V A Dyadkin, S V Grigoriev, D Lamago, T Wolf, E V Moskvina, S V Maleyev, H Eckerlebe</i>	
Magnetic Correlations in Pyrochlore Spin Ice As Probed by Polarized Neutron Scattering	76
<i>L J Chang, Y Su, H Schneider, R Mittal, M R Lees, G Balakrishnan, T Brückel</i>	

THIN FILMS AND NANOPARTICLES

Polarized Neutron Studies on Exchange-bias Micro-stripe Pattern	82
<i>Katharina Theis-Broehl, Christine Hamann, Jeffrey McCord, Boris P Toperverg, Hartmut Zabel</i>	
Soft X-ray Resonant Magnetic Reflectivity Studies for In-and Out-of-plane Magnetization Profile in Ultra Thin Films	90
<i>J-M Tonnerre, N Jaouen, E Bontempi, D Carbone, D Babonneau, M De Santis, H C N Tolentino, S Grenier, S Garaudee, U Staub</i>	
AC-polarized Neutron Reflectometry: Application to Domain Dynamics in Thin Fe Film	96
<i>K Zhernenkov, S Klinko, B P Toperverg, H Zabel</i>	
Supported and Embedded Fe Nanoparticles: Influence of the Environment on Shape and Interface Contributions to the Magnetic Anisotropy	100
<i>A Kleibert, F Bulut, W Rosellen, K H Meiwes-Broer, J Bansmann, M Getzlaff</i>	
Hard X-ray Resonant Scattering Study of Ni₈₁Fe₁₉(111)/CoO(111) Exchange Biased Bilayer	107
<i>R Feyerherm, E Dudzik, S Valencia, F Radu</i>	
Interlayer Exchange Coupling in Er/Tb Superlattices Mediated by Short Range Incommensurate Er Order	111
<i>E Pfuhl, J Voigt, S Mattauch, D Korolkov, T Brückel</i>	
Effect of Ag As a Surfactant on the Thermal Stability in Cu/Co Multilayers	116
<i>M Gupta, A Gupta, S M Amir, J Stahn, J Zegenhagen</i>	

Preparation and Analysis of Epitaxial Fe Monolayers Buried in Pd	122
<i>D Schumacher, S Mattauch, U Rücker, T Brückel</i>	
Peculiarities of Magnetic States in Ferromagnet/superconductor Heterostructures Due to the Proximity Effects	127
<i>V L Aksenov, Y N Khaidukov, Y V Nikitenko</i>	
Magnetization Flop in Fe/Cr GMR Multilayers	133
<i>E Josten, U Rücker, S Mattauch, D Korolkov, A Glavic, T Brückel</i>	

NEW METHODS AND INSTRUMENTATION

Overcoming the Field-of-view Restrictions in Soft X-ray Holographic Imaging	141
<i>C Tieg, R Frömter, D Stickler, H Stillrich, C Menk, S Streit-Nierobisch, L-M Stadler, C Gutt, O Leupold, M Sprung, G Grübel, H P Oepen</i>	
Towards a Tomographic Reconstruction of Neutron Depolarization Data	147
<i>Michael Schulz, Andreas Neubauer, Sergey Masalovich, Martin Mühlbauer, Elbio Calzada, Burkhard Schillinger, Christian Pfeleiderer, Peter Böni</i>	
XYZ-polarisation Analysis of Diffuse Magnetic Neutron Scattering from Single Crystals	151
<i>Werner Schweika</i>	
Amorphous Soft-magnetic Ribbons Studied by Ultra-small-angle Polarized Neutron Scattering	157
<i>G Badurek, E Jericha, R Grössinger, R Sato-Turtelli</i>	
Neutron Resonance Spin Echo Spectroscopy on Split Modes	163
<i>K Habicht, M Enderle, B Fåk, K Hradil, P Böni, T Keller</i>	
Isotope-periodic Multilayer Method for Short Self-diffusion Paths – a Comparative Neutron and Synchrotron Mössbauer Reflectometric Study of FePd Alloys	170
<i>D G Merkel, S Sajti, C Fetzner, J Major, M Major, R Rüdger, A Rühm, S Stankov, F Tanczikó, L Botyán</i>	
Description of the New I1011 Beamline for Magnetic Measurements Using Synchrotron Radiation at MAX-lab	176
<i>I A Kowalik, G Öhrwall, B N Jensen, R Sankari, E Wallén, U Johansson, O Karis, D Arvanitis</i>	
Polarized Neutron Scattering on the Triple-axis Spectrometer PANDA: First Results	182
<i>Enrico Faulhaber, Astrid Schneidewind, Fei Tang, Peter Link, Dirk Etzdorf, Michael Loewenhaupt</i>	
Beam Transport and Polarization at TOPAS, the Thermal Time-of-flight Spectrometer with Polarization Analysis	188
<i>J Voigt, E Babcock, T Brückel</i>	
Author Index	