

PNCMI 2016 – Program oral and poster presentations

	Mo. 04.07.16		Tu. 05.07.16		We. 06.07.16		Th. 07.07.16
			Session 3 Imaging / Soft matter <i>(P. Böni)</i>		Session 7 Polarized neutron instrumentation <i>(K. Habicht)</i>		Session 11 Complementary techniques <i>(A. van Well)</i>
		09:00 09:25 09:50 10:10 10:30	M. Strobl (ESS) M. Schulz (TUM) T. Shinohara (JPARC) H. Frielinghaus (JCNS) A. Savici (ORNL)	09:00 09:25 09:50 10:10 10:35	I. Zaliznyak (BNL) Y. Nambu (TohU) S. Mattauach (JCNS) R. Dalgliesh (ISIS) T. Saerbeck (ILL)	09:00 09:25 09:45 10:05	A. Petukhov (ILL) W.Kreuzpaintner(TUM) N. Pleshanov (PNPI) M. Enderle (ILL)
		10:50	Coffee break	10:55	Coffee break	10:25	Coffee break
10:00	Registration		Session 4 Frustrated and quantum magnets <i>(A. Michels)</i>		Session 8 Strongly correlated electron systems II <i>(R. Stewart)</i>		Session 12 Neutron scattering facilities <i>(M. Arai)</i>
		11:20 11:45 12:05 12:25	T. Fennel (PSI) J. Reim (TohU) F. Groitl (PSI) M. Skoulatos (TUM)	11:20 11:45 12:05 12:25	P. Bourges (LLB) T. Keller (MPI) B. Fak (ILL) F. Weber (KIT)	11:00 11:25 11:50 12:10 12:30 12:50	B. Märkisch (TUM) K. Kakurai (CROSS) L. He (CIAE) S. Mattauach (JCNS) X. Fabreges (LLB) Closing
12:00 12:50	Lunch Welcome	12:45	Lunch	12:50	Lunch	13:00	Lunch
	Session 1 Multiferroic and Chirality <i>(K. Kakurai)</i>		Session 5 Thin films and multilayers I <i>(B. Toperverg)</i>		Session 9 Polarized neutron techniques / Analysis <i>(A. Ioffe)</i>		
13:00 13:25 13:50 14:10 14:30 14:50	D. Gilbert (NIST) M. Schmitz (JCNS) J.-H. Chung (Korea U) S. Grigoriev (PNPI) S. Mühlbauer (TUM) S.-A. Siegfried (HZG)	13:45 14:10 14:30 14:50 15:10	E. Kravtsov (IMP) A. Glavic (PSI) D. Lott (HZG) V. Tarnavich (PNPI) O. Holderer (JCNS)	13:45 14:10 14:35 14:55 15:15	W. Chen (NIST) W. Tung Lee (ANSTO) B. Winn (ORNL) E. Babcock (JCNS) G.Nielsen (ISIS)		
15:10	Coffee break	15:30	Coffee break	15:35	Coffee break		
	Session 2 Strongly correlated electron systems I <i>(T. Brückel)</i>		Session 6 Thin films and multilayers II <i>(D. Lott)</i>		Session 10 Polarized neutron techniques / NSE <i>(O. Holderer)</i>		
15:40 16:05 16:30 16:50 17:15 17:35	P. Dai (Rice U) S. Nandi (ITK) W. Jin (JCNS) K. Ridier (GEMaC) A. Michels (ULux) Z. Fu (JCNS)	16:00 16:25 16:45 17:05 17:25	B. Toperverg (PNPI) R. Maruyama (JPARC) S. Mayr (TUM) Y. Khaydukov (MPI) A. Sved Mohd (JCNS)	16:05 16:30 16:55 17:15 17:35	B. Farago (ILL) A. van Well (TUD) K. Habicht (HZB) O.Ivanova (JCNS) M. Kotlarchyk (RIT)		
17:55	Poster session 1	17:45	Poster session 2	17:55	18:30 Transfer to		
20:00	Dinner	20:00	Dinner	20:00	Workshop dinner		

Mo. 04.07.2016

12:50 Welcome

Session 1 Multiferroic and Chirality

Session chair: Kazuhisa Kakurai (CROSS)

13:00(I) **Dustin A. GILBERT (NIST)**

Realization of Ground-State Artificial Skyrmion Lattices at Room Temperature

13:25(I) **Markus SCHMITZ (FZ Jülich)**

Strain and electric field mediated manipulation of magnetism in $\text{La}_{(1-x)}\text{Sr}_x\text{MnO}_3/\text{BaTiO}_3$ heterostructures

13:50 **Jae-Ho CHUNG (Korea University)**

Spherical neutron polarimetry study of spontaneous magnetic handedness reversal in multiferroic spiral magnet $\text{Mn}_{1-x}\text{Ni}_x\text{WO}_4$

14:10 **Sergey GRIGORIEV (PNPI)**

Hidden quantum phase transition in $\text{Mn}_{1-x}\text{Fe}_x\text{Si}$

14:30 **Sebastian MÜHLBAUER (TU Munich)**

Static and Quasi-Elastic Properties of the Spiral Magnet $\text{Ba}_2\text{CuGe}_2\text{O}_7$ Studied by NRSE Spectroscopy

14:50 **Sven-Arne SIEGFRIED (HZG)**

Spin waves in full-polarized state of Dzyaloshinskii-Moriya helimagnets: Small-angle neutron scattering study

15:10 Coffe break

Session 2 Strongly correlated electron systems I

Session chair: Thomas Brückel (JCNS)

15:40(I) **Pengcheng DAI (Rice University)**

Neutron Polarization Analysis of spin excitations in iron-based superconductors

- 16:05(I) **Shibabrata NANDI (Indian Institute of Technology Kanpur)**
Magnetic structure and magnetization densities of iron arsenide superconductors
- 16:30 **Wentao JIN (JCNS)**
Magnetic polarization of Ir in underdoped nonsuperconducting $\text{Eu}(\text{Fe}_{0.94}\text{Ir}_{0.06})_2\text{As}_2$
- 16: 50(I) **Karl RIDIER (GEMaC, LLB)**
Polarized neutron diffraction as a tool for mapping molecular magnetic anisotropy: local susceptibility tensors in Co^{II} complexes
- 17:15 **Andreas MICHELS (University Luxemburg)**
Effect of Dzyaloshinski-Moriya interaction on spin-polarized neutron scattering: prediction of a polarization dependence of the spin-flip cross section
- 17:35 **Zhendong FU (JCNS)**
Field-Driven Self-Assembly of Magnetite Nanoparticles Investigated Using Small-Angle Neutron Scattering
- 17:55 **Poster session 1**

Tu. 05.07.2016

Session 3 Imaging / Soft matter

Session chair: Peter Böni (TU Munich)

- 09:00(I) **Markus STROBL (ESS)**
Spin-Echo Modulated Dark-Field Imaging
- 09:25(I) **Michael SCHULZ (TU Munich)**
Neutron Depolarization Imaging on weak ferromagnets
- 09:50 **Takenao SHINOHARA (J-PARC)**
Polarization analysis for Magnetic field imaging at RADEN in J-PARC/MLF

10:10 **Henrich FRIELINGHAUS (JCNS)**

The effect of amphiphilic polymers with a continuous phlicity profile on the membrane properties in a bicontinuous microemulsions studied by neutron scattering

10:30 **Andrei SAVICI (ORNL)**

Data processing workflow for time of flight polarized neutrons inelastic measurement

10:50 Coffee break

Session 4 Frustrated and quantum magnets

Session chair: Andreas Michels (Uni Luxemburg)

11:20(I) **Tom FENNEL (PSI)**

Spin correlations and magnetoelastic excitations in Tb₂Ti₂O₇

11:45 **Johannes Reim (Tohoku University)**

Skyrmion-lattice like spin structure in a layered kagome system

12:05 **Felix GROITL (PSI)**

Anomalous thermal decoherence in a quantum magnet measured with neutron spin-echo spectroscopy

12:25 **Markos SKOULATOS (TU Munich)**

Emergent phases and frustration in model magnets

12.45 Lunch

Session 5 Thin films and multilayers I

Session chair: Boris Toperverg (PNPI)

13:45(I) **Evgeny KRAVTSOV (Inst. of Metal Physics)**

Complementary application of polarized neutron and resonant x-ray reflectometry to probe magnetic order in metallic multilayers

- 14:10 **Artur GLAVIC (PSI)**
Experimental evidence for FM/AFM interlayer exchange coupling from polarized neutron reflectometry and neutron diffraction
- 14:30 **Dieter LOTT (HZG)**
Chirality induced exchange bias effect in DyCo/FeNi bilayers investigated by polarized neutron reflectometry
- 14:50 **Vladislav TARNAVICH (PNPI)**
Sign-changing chirality in Ho/Y multilayers
- 15:10 **Olaf HOLDERER (JCNS)**
Grazing incidence NSE with advanced optical components
- 15:30 Coffee break

Session 6 Thin films and multilayers II

Session chair: Dieter Lott (HZG)

- 16:00(I) **Boris TOPERVERG (PNPI)**
PNR from laterally patterned spin-valves
- 16:25 **Ryuji MARUYAMA (J-PARC)**
Study of the in-plane magnetic structure of a layered system using polarized neutron off-specular and grazing-incidence small-angle scattering
- 16:45 **Sina MAYR (TU Munich)**
Fe Layer Induced Ferromagnetism in Pd: An In-Situ Polarised Neutron Reflectometry Study
- 17:05 **Yuri KHAYDUKOV (MPI)**
Magnetic waveguides in polarized neutron reflectometry of oxide heterostructures
- 17:25 **Amir SYED MOHD (JCNS)**
Growth and interfacial properties of FePt/Fe/NiO and FePt/NiO/Fe trilayers
- 17:45 **Poster Session 2**

We. 06.07.2016

Session 7 Polarized neutron instrumentation

Session chair: Klaus Habicht (HZB)

09:00(I) **Igor ZALIZNYAK (BNL)**

Polarized inelastic neutron scattering on Hybrid Spectrometer at SNS

09:25(I) **Yusuke NAMBU (Tohoku University)**

Magnetism of the triangular antiferromagnet NiGa₂S₄ and introduction of POLANO

09:50 **Stefan MATTAUCH (JCNS)**

MARIA – The high-intensity polarized neutron reflectometer of JCNS

10:10(I) **Robert DALGLISH (ISIS)**

Larmor: A flexible instrument for SANS, Polarised SANS and Larmor precession techniques

10:35 **Thomas SAERBECK (ILL)**

Time-of-flight and monochromatic polarized neutron reflectometry on D17 at ILL

10:55 Coffee break

Session 8 Strongly correlated electron systems II

Session chair: Ross Stewart (ISIS)

11:20(I) **Philippe BOURGES (LLB)**

Q=0 Magnetic order in the pseudogap state of cuprates superconductors

11:45 **Thomas KELLER (MPI)**

Magnetostriction and magnetostructural domains in antiferromagnetic YBa₂Cu₃O₆

12:05 **Björn FÅK (ILL)**

Magnetic structure of the noncentrosymmetric heavy-fermion superconductor CePt₃Si

12:25(I) **Frank WEBER (KIT)**
Magnetic moments induce strong phonon renormalization in FeSi

12:50 Lunch

Session 9 Polarized neutron techniques / Analysis

Session chair: Alexander Ioffe (JCNS)

13:45(I) **Wangchun CHEN (NIST)**
Polarized neutron developments and applications at the NIST Center for Neutron Research

14:10(I) **Wai Tung LEE (ANSTO)**
Polarised Neutron Instrumentation and Scientific Experiments at ANSTO

14:35 **Barry WINN (ORNL)**
3D Polarization Analysis with a Polarizing Supermirror Array Analyzer at HYSPEC

14:55 **Earl BABCOCK (JCNS)**
Polarized ^3He neutron spin filter for PA studies at the JCNS

15:15 **Goran NILSEN (ISIS)**
Polarization analysis on the LET direct geometry time-of-flight spectrometer

15:35 Coffee break

Session 10 Polarized neutron techniques / NSE

Session chair: Olaf Holderer (JCNS)

16:05(I) **Bella FARAGO (ILL)**
The IN15 upgrade and first results

16:30(I) **Ad van WELL (TU Delft)**
Larmor neutron diffraction with one precession arm

16:55 **Klaus HABICHT (HZB)**
MIEZE Larmor Diffraction

- 17:15 **Oxana IVANOVA (JCNS)**
J-NSE: recent scientific and instrumental developments
- 17:35 **Michael KOTLARCHYK (RIT)**
A framework for modeling polarized neutron scattering from NMR spin-modulated systems
- 18:30 Transfer to conference dinner

Th. 07.07.2016

Session 11 Complementary techniques

Session chair: Ad van Well (TU Delft)

- 09:00(I) **Alexander PETUKHOV (ILL)**
Toward a broad-band neutron polarizer with flipping-ratio of thousands
- 09:25 **Wolfgang KREUZPAITNER (TU Munich)**
In-Situ Polarised Neutron Reflectometry during Thin Film Growth
- 09:45 **Nikolay PLESHANOV (PNPI)**
First neutron mirror spin flipper: experiment, perspectives
- 10:05 **Mechthild ENDERLE (ILL)**
Progress in Parallel Polarisation Analysis
- 10:25 Coffee break

Session 12 Neutron scattering facilities

Session chair: Masatoshi Arai (ESS)

- 11:00(I) **Bastian MÄRKISCH (TU Munich)**
Measurements with Polarised Neutrons in Neutron Beta Decay

- 11:25(I) **Kazuhisha Kakurai (CROSS)**
Polarized neutron activities at the J-PARC Materials and Life Science Facility -
An Overview
- 11:50 **Lifeng HE (CIAE)**
The current status of facilities at China Advanced Research Reactor
- 12:10 **Stefan MATTAUCH (JCNS)**
Polarized neutron activities at the JCNS
- 12:30 **Xavier FABREGES (LLB)**
MAGiC: the polarized single crystal diffractometer at ESS
- 12:30 Closing remarks
- 13:00 Lunch

Poster session 1

Monday, 04.07.2016, 17:55

Frustrated and disordered systems

I. Shishkin Study of the «ice-rule» fulfilling in ferromagnetic inverse opals by SANS

Magnetic nanomaterials

N. Grigoryeva Study of ordered ferromagnetic nanoparticles with different morphology by polarized neutron method

X. Sun Magnetic properties and spin structure of MnO and FePt@MnO nanoparticles

N. Chubova Determination of the enantiomorph excess (crystal handedness) in the rmpolycrystalline metallic samples of B20 structures

Multiferroic and chirality

E. Altynbaev Hidden quantum phase transition in $Mn_{1-x}Fe_xGe$: evidence brought by small-angle neutron scattering

A. Sazonov Magnetic structure and magnetic domain population in multiferroic $Ba_2CoGe_2O_7$ by polarized neutron diffraction

Strongly correlated electron systems

Y. Khaydukov Long-range interlayer coupling in CuNi/Nb superlattices revealed by Polarized Neutron Reflectometry and SQUID magnetometry

P. Zakalek Emergent Single Magnetic State in Mixed Valence Manganite Heterostructures

Polarized neutron techniques and methods

W. Kreuzpaintner Polarised Neutron Reflectometry Carried out at the Time-of-Flight neutron Reflectometer REFSANS Using a 3He Spin Filter

V. Matveev The study of the possibility of using thin Ti and Co films to improve polarizing coatings of neutron optics

M. Seifert	Neutron depolarization imaging of the pressure dependence of HgCr ₂ Se ₄
I. Takashi	Development of the polarized ³ He neutron spin filter for POLANO at J-PARC
H. Thoma	Studies on modulation-enhanced polarized neutron diffraction
J. Ye	Experimental Setup for Investigation on Magnetic Thin Layers by in-situ Neutron Reflectometry
S. Schwesig	Novel type of polarisation analysis with the multianalyser at PUMA
E. Iashina	Spin-echo small-angle instrument for study the structure organization of the chromatin in biological cell
V. Sadilov	Sectoral collimation in SESANS with time-gradient magnetic field

Thin films and multilayers

S. Pütter	First (quasi) in-situ neutron reflectivity measurements on ultrathin magnetic films at MARIA
T. Veres	Roughness replication in neutron supermirrors and periodic multilayers
S. Kozhevnikov	Polarized neutron channeling for the investigations of weakly magnetic thin films
A. Steffen	Detection of unexpected precipitates in LSMO films via PNR and TEM

Imaging

K. Hiroi	Magnetic field imaging of a driving electric motor using polarized pulsed neutrons at J-PARC/MLF
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Soft matter and biology

B. Nagy	Determining the Hydrated Structure of poly(HEMA-co-PEGMA) Films
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Poster session 2

Tuesday, 05.07.2016, 17:45

Polarized neutron instrumentation

- W. Chen** A test platform for polarized neutron instrumentation development
- S. Watson** ^3He spin filter advancements at the NCNR
- T. Krist** Polarizing neutron optics from Helmholtz-Zentrum Berlin
- A. Feoktystov** Polarized neutrons and polarization analysis on KWS-1 small-angle neutron scattering instrument of JCNS
- D. Merkel** Four-bounce neutron polarizer for reflectometry applications
- K. Pavlov** Optimization of a polarizer device for SANS-2 instrument at PIK reactor
- W. Schmidt** Polarization analysis on the new IN12
- P. Konik** Neutron optics optimization for two polarized neutron reflectometers
- N. Violini** T-REX: Time-of-flight Reciprocal space Explorer, the bispectral direct geometry chopper spectrometer at the ESS
- T. Bigault** Dealing with parasitic reflections in polarising supermirror devices
- H. Kira** Development and Demonstration Study of Polarized ^3He Neutron Spin Analyzer for Small-Angle Polarized Neutron Scattering Instrument in J-PARC
- V. Bodnarchuk** Monte Carlo simulations of SESANS experiments using time-gradient magnetic fields
- R. Gainov** 2V-based polarizer for cold neutron TOF spectrometer NEAT-II
- S. Pasini** New superconducting solenoids with optimized field-integral homogeneity for the neutron spin-echo spectrometer at MLZ
- I. Zobkalo** New POLDI – project of reincarnation of a polarized neutron diffractometer at the reactor PIK
- K. Nemkowski** Recent developments at DNS, diffuse neutron scattering spectrometer with polarization analysis at MLZ
- K. Nemkowski** Simulation and optimization of new focusing polarizing bender for diffuse neutron scattering spectrometer DNS@MLZ

- V. Hutanu** Polarisation Investigator POLI – new single crystal polarised neutron diffractometer at MLZ
- K. Zaw Lin** Investigation of multilayered magnetic nanostructure Fe/Co and a new version of the neutron polarization analysis
- E. Babcock** Latest results of practical testing of PASTIS with a TOF beamline
- E. Babcock** Data corrections for neutron polarization simplified using an in-situ polarized ³He neutron spin filter
- J. Voigt** Polarization analysis for polychromatic chopper spectrometers
- V. Syromyatnikov** New compact neutron supermirror transmission polarizer
- V. Syromyatnikov** Multichannel supermirror analyzers of neutron polarization of fan type
- D. Pushin** Polarized neutron interferometer beamline for material research at National Institute of Standards and Technology