

# EBS workshop on X-ray Spectroscopy of Magnetic Materials

ESRF, Grenoble, France

ESRF auditorium

## Day 1 - Monday 7<sup>th</sup> October 2019

**08:30 - 09:15** Registration in the ESRF Central Building entrance hall with welcome coffee

**09:15 - 09:30** Welcome/Introduction

**Harald Reichert**

*Director of Research  
ESRF Grenoble, France*

**09:30 - 10:30** Session 1  
Chair: Harald Reichert

09:30 - 10:00 Ultrafast X-ray Imaging of Magnetic Materials

**Roopali Kukreja**

*University of California Davis, USA*

10:00 - 10:30 XMCD Studies of Actinide Compounds with Formally Nonmagnetic 5f-Electron Ground State

**Roberto Caciuffo**

*European Commission, JRC-Karlsruhe, Germany*

**10:30 - 11:00** Coffee and poster session

**11:00 - 12:30** Session 2  
Chair: Marina Spasova

11:00 - 11:30 X-ray Spectroscopy on Molecular Magnets: Magnetometry, Electronic Structure, and more.

**Fernando Bartolomé**

*University of Zaragoza, Spain*

11:30 - 12:00 Long-Lived Magnetic States in Single-Atom Magnets at Surfaces

**Sebastien Stepanow**

*ETH Zürich, Switzerland*

12:00 - 12:30 A New Twist to Interface Magnetism

**Sarnjeet Dhesi**

*Diamond Light Source Didcot, UK*

**12:30 - 14:00** Lunch at the EPN campus restaurant

**14:00 - 16:00** Session 3  
Chair: Philippe Saintavit

14:00 - 14:30 In-Situ Characterization of SPION Solutions by Means of 1s2p RIXS-MCD

**Marcin Sikora**

*AGH University of Science and Technology Krakow, Poland*

14:30 - 15:00 Elucidating the Electronic Structure of Magnetite using X-ray Magnetic Dichroism

**Hebatalla Elnaggar**

*Utrecht University, The Netherlands*

15:00 - 15:30 Magnetic- and Orbital-Excitations in 4d Transition Metals

**Hlynur Gretarsson**

*Petra-III Hamburg, Germany*

15:30 - 16:00 Impact of La Doping on the Local Electronic Properties of the Ru<sup>4+</sup> Ion: A Ru L-Edge XMCD study on Ca<sub>2-x</sub>La<sub>x</sub>RuO<sub>4</sub>

**Larissa Ishibe Veiga**

*University College London, UK*

**16:00 - 16:30** Coffee and poster session

<b>16:30 - 18:30</b>		
<b>Session 4</b>		
<b>Chair: Jan Vogel</b>		
16:30 - 17:00	Spin Excitations Studied by Resonant Inelastic X-ray Scattering	<b>Giacomo Ghiringhelli</b> <i>Politecnico di Milano, Italy</i>
17:00 - 17:30	Revealing Magnetoelectric Coupling in Heterostructures by X-ray Magnetic Circular Dichroism	<b>Cinthia Piamonteze</b> <i>SLS PSI Villigen, Switzerland</i>
17:30 - 18:00	Magnetism Investigations by XMCD & XRMS at ALBA BL29: Recent Highlights and On-Going Developments	<b>Manuel Valvidares</b> <i>ALBA Synchrotron Cerdanyola del Valles, Spain</i>
18:00 - 18:30	Chirality in Thin Films and Multilayers probed by Soft X-ray (Coherent) Scattering	<b>Nicolas Jaouen</b> <i>Synchrotron Soleil Gif-sur-Yvette, France</i>
<b>19:00 - 21:00</b>		
<b>Dinner at the EPN campus restaurant</b>		

## Day 2 - Tuesday 8<sup>th</sup> October 2019

<b>09:00 - 10:30</b>		
<b>Session 5</b>		
<b>Chair: Alain Fontaine</b>		
09:00 - 09:30	Magnetic Scattering and Spectroscopy at High Pressures at APS and APS-U	<b>Daniel Haskel</b> <i>APS Argonne National Laboratory, USA</i>
09:30 - 10:00	X-ray Magnetic Circular Dichroism Spectroscopy and Magnetic Imaging at SPring-8	<b>Motohiro Suzuki</b> <i>SPring-8 Hyogo, Japan</i>
10:00 - 10:30	Recent Developments at the Resonant Scattering and Diffraction Beamline P09 at PETRA III at DESY	<b>Sonia Francoual</b> <i>Petra-III Hamburg, Germany</i>
<b>10:30 - 11:00</b>		
<b>Coffee and poster session</b>		
<b>11:00 - 12:30</b>		
<b>Session 6</b>		
<b>Chair: Pieter Glatzel</b>		
11:00 - 11:30	Soft X-ray XMCD at Ultra-Low Temperature	<b>Philippe Ohresser</b> <i>Synchrotron Soleil Gif-sur-Yvette, France</i>
11:30 - 12:00	Hard XMCD under Extreme Conditions	<b>Fabrice Wilhelm</b> <i>ESRF Grenoble, France</i>
12:00 - 12:30	XAS at Extremes: Magnetic Materials under Pressure and Pulsed Magnetic Fields	<b>Olivier Mathon</b> <i>ESRF Grenoble, France</i>
<b>12:30 - 14:00</b>		
<b>Lunch at the EPN campus restaurant</b>		
<b>14:00 - 16:00</b>		
<b>Session 7</b>		
<b>Chair: Cyrille Train</b>		
14:00 - 14:30	Modular Approaches to Magnetic Materials of 4d, 5d, and 5f Metal Ions	<b>Kasper Pedersen</b> <i>Petra-III Hamburg, Germany</i>
14:30 - 15:00	Cyanido-Bridged Fe/Co Pairs : How to Make Them and How to Study the Switching Mechanism with XAS and XMCD Spectroscopies	<b>Corine Mathonière</b> <i>University of Bordeaux, France</i>
15:00 - 15:30	Exploring the Magnetism of Molecules at the Nanoscale using Synchrotron and Scanning Probes-Based Techniques	<b>Matteo Mannini</b> <i>University of Florence, Italy</i>
15:30 - 16:00	"Spin Injection" in Molecule-Based Materials toward Conducting Magnets	<b>Rodolphe Clerac</b> <i>CNRS Bordeaux, France</i>

<b>16:00 - 16:30</b>	<b>Coffee and poster session</b>	
<b>16:30 - 18:30</b>	<b>Session 8</b> <b>Chair: Jean-Pierre Sanchez</b>	
16:30 - 17:00	Magnetism with Nuclear Resonance Scattering	<b>Aleksandr Chumakov</b> <i>ESRF Grenoble, France</i>
17:00 - 17:30	Magnetic Transitions in Fe <sub>2</sub> O <sub>3</sub> at High Pressures: Magnetism in the Earth's Mantle	<b>Ilya Kupenko</b> <i>University of Münster, Germany</i>
17:30 - 18:00	Who cares about Magnetism at Extreme Conditions?	<b>Catherine McCammon</b> <i>University of Bayreuth, Germany</i>
18:00 - 18:30	Study of Spin Reorientations by Nuclear Forward Scattering in Fe and Ir Containing Compounds	<b>Ilya Sergueev</b> <i>Petra-III Hamburg, Germany</i>
<b>19:00 - 21:00</b>	<b>Wine and Cheese buffet</b>	

## Day 3 - Wednesday 9<sup>th</sup> October 2019

<b>09:00 - 10:30</b>	<b>Session 9</b> <b>Chair: Tim Ziman</b>	
09:00 - 09:30	Theoretical Description of X-ray Experiments on Magnetic Materials out of Equilibrium	<b>Hubert Ebert</b> <i>University of Munich, Germany</i>
09:30 - 10:00	Band Structure Approach to RIXS	<b>Alexander Yaresko</b> <i>MPI für Festkörperforschung Stuttgart, Germany</i>
10:00 - 10:30	Magnetic Surface Resonant X-ray Diffraction	<b>Yves Joly</b> <i>CNRS Grenoble, France</i>
10:30 - 11:00	Electronic and Magnetic Character of UTe <sub>2</sub> Unconventional Superconductor	<b>Alexander Shick</b> <i>Institute of Physics Prague, Czech Republic</i>
<b>11:00 - 11:30</b>	<b>Coffee and poster session</b>	
<b>11:30 - 12:30</b>	<b>Session 10</b> <b>Chair: Patrick Bruno</b>	
11:30 - 12:00	X-ray Magneto-Chiral Dichroism	<b>Andrei Rogalev</b> <i>ESRF Grenoble, France</i>
12:00 - 12:30	Recent and Future Developments at the Soft X-ray Spectroscopy Beamline ID32	<b>Nicholas Brookes</b> <i>ESRF Grenoble, France</i>
<b>12:30 - 12:45</b>	<b>Summary/Closure</b>	
<b>12:45 - 14:00</b>	<b>Lunch at the EPN campus restaurant</b>	