## **Magnetic Materials under Extreme Conditions**

6-9 February 2012

Venue: ILL Chadwick Amphitheatre

## **Programme**

Monday, 6 February 2012				
11:30-12:00	Pre-registration at the ILL			
12:00-13:30	Lunch at the ESRF/ILL restaurant			
13:30-14:00	Registration at the ILL			
14:00-14:15	Opening by Harald Reichert, Director of Research at the ESRF, Grenoble, France			
14:15-17:50	Session 1: Chair: H. Reichert			
14:15	XMCD with large magnetic fields	P. Sainctavit IMPMC, Paris, France		
15:00	Extreme sample environment for neutrons and X-rays at HZB Berlin	K. Prokes HZB, Berlin, Germany		
15:45-16:15	Coffee break at ILL			
16:15	Intrinsic magnetism in nanosized noble metals	J. Bartolomé Unizar, Zaragoza, Spain		
17:00	Electronic structure of charge ordered La <sub>5/3</sub> Sr <sub>1/3</sub> NiO <sub>4</sub> by XES and RIXS	L. Simonelli ESRF, Grenoble, France		
17:25	Structural and insulator-to-metal phase transition at 50 GPa in GdMnO <sub>3</sub>	<b>J. Agostinho Moreira</b> Universidade do Porto, Portugal		

Tuesday, 7 February 2012				
09:00-12:30	Users' Meeting Morning Session in the ESRF Auditorium			
12:30-14:00	Lunch at the ESRF/ILL restaurant			
14:00-17:30	Users' Meeting Parallel Session Chair: C. Aruta			
14:00	Isothermal electric control of exchange bias near room temperature	C. Binek NCMN, University of Nebraska, USA		
14:45	Quantum phase transitions in low-dimensional model magnets	<b>D. McMorrow</b> University College London, UK		
15:30-16:00	Coffee break at ILL			
16:00	Generation of femtosecond pulses of effective magnetic field for ultrafast control of magnetism	A. Kimel Radboud University, Nijmegen, The Netherlands		
16:45	Pressure induced magnetic and structural transitions in the 3d metals and their alloys by means of K-edge XMCD	R. Torchio ESRF, Grenoble, France		
17:10	Magnetic structure of magneto-electric NdFe <sub>3</sub> (BO <sub>3</sub> ) <sub>4</sub> under applied magnetic and electric fields	<b>J. E. Hamann-Borrero</b> IFW-Dresden, Germany		
18:30-20:00	Cocktail & Joint Poster Session			
20:00-22:30	Users' Meeting Dinner at the ESRF/ILL restaurant			

Wednesday, 8 February 2012				
09:00-12:30	Users' Meeting Morning Session in the ESRF Auditorium			
12:30-14:00	Lunch at the ESRF/ILL restaurant			
14:00-17:35	Session 2: Chair: A. Fontaine			
14:00	Iron under pressure: 'Kohn Tweezers' and remnant magnetism	A. Shukla IMPMC, Paris, France		
14:45	A magnetic EXAFS study under high pressure noncollinear spin structure in Fe-Ni invar alloy	H. Maruyama Hiroshima University, Japan		
15:30-16:00	Coffee break at ILL			
16:00	Spin crossovers, magnetic and electronic properties of 3d-metal oxides at high and ultra high pressures	I. Lyubutin IC RAS, Moscow, Russia		
16:45	Novel magnetic states in the low dimensional quantum magnet SrCu <sub>2</sub> (BO <sub>3</sub> ) <sub>2</sub> under high pressure	M. Zayed Qatar University, Qatar		
17:10	Charge order in La <sub>2-x</sub> Ba <sub>x</sub> CuO <sub>4</sub> under high pressure and high magnetic field	M. von Zimmermann HASYLAB/DESY, Hamburg, Germany		
19:30-22:30	Workshop Dinner at the restaurant 'La Corne d'Or' in Corenc			

Thursday, 9 February 2012				
09:00-12:30	Session 3: Chair: P. Bruno			
09:00	Coexistence of ferromagnetism and superconductivity in single-phase Bi <sub>3</sub> Ni nanostructures	<b>T. Herrmannsdörfer</b> HLD, Dresden, Germany		
09:45	Bistable magnetic systems at the nanoscale: the molecular way	Matteo Mannini Università di Firenze		
10:30-11:00	Coffee break at ILL			
11:00	Superconductivity and magnetism of heavy fermion systems: some open problems!	JP. Brison SPSMS, INAC Grenoble, France		
11:45	RMXS study of the frustrated antiferromagnet Ca <sub>3</sub> Co <sub>2</sub> O <sub>6</sub> in applied magnetic field	C. Mazzoli Politecnico di Milano, Italy		
12:10	Pressure-induced transition in the ground state of TiOCl: from spin-peierls to incommensurate charge-density-wave	A. Prodi University of Copenhagen, Denmark		
12:35	Closing remarks by Patrick Bruno, Head of the ESRF Theory group, Grenoble, France			
12:50-14:00	Lunch at the ESRF/ILL restaurant			