

X-Ray and Neutron Science

ESRF/ILL International

Student Summer Programme

3rd to 29th September 2023

Thursday, 28 th September – Students' Workshop – ESRF Auditorium		
Session 1: chair - Patrick Bruno (ESRF)		
13:45 – 14:00	Welcome + Introduction	Patrick Bruno , ESRF
14:00 – 14:15	Probing sulfur compounds with X-Ray absorption and emission spectroscopy	Lisa Büttner - ESRF Technische Hochschule Nürnberg
14:15 – 14:30	DFT calculation and Machine Learning Analysis of XES for Organosulfuric Compounds	Yi Teng - ESRF University of Cambridge
14:30 – 14:45	X-ray emission spectroscopy of pristine and doped single crystals of magnetite	Agnieszka Klimeczek - ESRF University of Science & Technology, AGH
14:45 – 15:00	Coherent X-Ray Imaging Techniques	Zeno Maesen - ESRF Katholieke Universiteit Leuven
15:00 – 15:15	An X-ray imaging study of the failure of nickel superalloys under stress and high temperature	Isabelle Clowry - ESRF University of Cambridge
15:15 – 15:45	<i>Coffee Break</i>	
Session 2: chair – Valentin Czamler (ILL)		
15:45 – 16:00	Modelling magnetic exchanges in the spin glass Mn _{0.5} Fe _{0.5} PS ₃	Lucía Santiago Andrades - ILL University of Seville
16:00 – 16:15	Neutron total scattering and pair distribution functions	Julie Brun - ILL University of Bergen
16:15 – 16:30	Virtual transmission experiments using Monte Carlo neutron transport simulation code	Luca Testa - ILL Universita degli Studi di Torino
16:30 – 16:45	Triple-Axis Neutron Spectrometry at IN20: A Resolution Study	Julia Mathe - ILL TU Wien

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Session 3: chair – Kamaldeep Dalal (ILL)		
09:00 – 09:15	Determining the structure of thin films with X-ray reflectivity	Daniel Smolders - ILL University of Cambridge
09:15 – 09:30	Crystallographic investigation of gas absorption in a zeolite	Yarden Nahmias - ESRF Ben Gurion University of the Negev
09:30 – 09:45	Γ -point phonon calculations and phonon softening in La ₂ CuO ₄	Piotr Żeberek - ILL University of Science & Technology - AGH
09:45 – 10:00	NaMgH ₃ - Solid State Hydrogen Storage Candidate	František Zajíč - ILL Charles University
10:00 – 10:15	Titan minerals at depth : the case of benzene-acetonitrile	Matéo Françoise - ESRF Sorbonne Université
10:15 – 10:45	<i>Break</i>	
Session 4: chair - Ida Fazlic (ESRF)		
10:45 – 11:00	Spectroscopic and structural characterisation of twist Cerulean- a photoswitchable fluorescent protein	Hanna Deckert - ESRF University of Glasgow
11:00 – 11:15	Rheological Investigation of the Variation of the Ionomer-to-Carbon Ratio in Fuel Cell Catalyst Inks	An Nguyen – ILL RWTH Aachen University
11:15 – 11:30	Shining a light on paint innovation: characterization of a new light-triggered drying agent	Cécile Bretonnet - ESRF Sorbonne Université
11:30 – 11:45	Physico-chemical characterization of chitosan-surfactant mixtures	Viola Ferretti - ILL Università di Bologna
11:45 – 12:00	Closing remarks	Paul Steffens , ILL