



Programme

Wednesday, January 18th, 2023

SOLEIL Auditorium - Main Building

Tutorial:

14:00 - 17:00 Use of the Fastosh software for the XAS data treatment—Part. I
Gautier Landrot – SAMBA Beamline

Thursday, January 19th, 2023

SOLEIL Auditorium - Main Building

09:00 - 10:00 *Registration & coffee*

10:00 - 10:10 Welcome / Introduction, ORGUES Chair – **Rozenn Le Hir**

10:10 - 10:20 The word of SOLEIL General Director – **Jean Daillant**

10:20 - 11:05 **Surfaces/Interfaces**

Itinerant-to-localized transmutation of electrons across the metal-to-insulator transition
Andrès F. Santander Syro - *Institut des Sciences Moléculaires d'Orsay, France*

11:05 - 11:50 **Biology/Health**

Functional consequences of a bacterial amyloid interaction with single stranded DNA
Véronique Arluison - *Laboratoire Léon Brillouin, Gif-sur-Yvette, France*

11:50 - 12:10 Peer Review Committee 5 (Biology/Health) – **Thibaud Crépin**
Peer Review Committee 6 (New Materials) – **Emmanuelle Montarges-Pelletier**
Questions 10mn

12:10 - 12:30 Projection vidéo HELIOBIO (Tatiana Isabet / Frédéric Jamme / Aurélien Thureau)

12:30 - 13:45 *Lunch*



Parallel sessions – 3 different auditoriums (see the detailed programme below)

- 14:00 - 16:00
- Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry)
 - Life & Earth Sciences (Biology / Cultural heritage / Health & Environment / Geoscience)
 - New Materials (Structure / Electronic Properties / Surfaces & Interfaces)

16:00 - 16:30 *Coffee break*

Parallel sessions – 3 different auditoriums (see the detailed programme below)

- 16:30 - 18:00
- Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry)
 - Life & Earth Sciences (Biology / Cultural heritage / Health & Environment / Geoscience)
 - New Materials (Structure / Electronic Properties / Surfaces & Interfaces)

18:00 - 20:00 Posters session
Visit of 3 Beamlines (LUCIA / METROLOGY / PROXIMA-2A)

20:00 - 21:30 Award of the best student poster / *Dinner*



Programme

Friday, January 20th, 2023

Parallel sessions – 3 different auditoriums (see the detailed programme below)

- 09:00 - 10:45
- Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry)
 - Life & Earth Sciences (Biology / Cultural heritage / Health & Environment / Geoscience)
 - New Materials (Structure / Electronic Properties / Surfaces & Interfaces)

10:45 - 11:15 *Coffee break* – Cafeteria Space near [SOLEIL Auditorium - Main Building](#)

Round Table - [SOLEIL Auditorium - Main Building](#)

Data analysis management (Brigitte Gagey / Emmanuel Farhi / Majid Ounsy / Ana Valcarel Orti / Andy Goetz):

- 11:15 - 12:30
- Open science tools
 - Data service
 - E-learning / training

12:30 - 13:45 *Lunch*

[SOLEIL Auditorium - Main Building](#)

Use of the Fastosh software for the XAS data treatment—Part. II

Gautier Landrot - SAMBA Beamline

14:00 - 17:00 [Libra & Phenix Rooms –SOLEIL Main Building](#)

PROXIMA 2A Training Tutorial: Using μ -Focused X-rays for Cryo-Crystallography and Plate Screening

William Shepard – PROXIMA-2A Beamline



Parallel Session Schedule

Dynamic, reactivity and Chemical analysis (Diluted Matter & Chemistry)

Chairpersons: A. Tougeri, P. Asselin, F. Carn, H. Dossmann

*SOLEIL - Reception Building Auditoriums
Ground Floor & PA.1.12 Rooms*

Thursday, January 19th, 2023

- 14:00 - 14:30
(25'+5') Precision UV spectroscopy for astronomy and search of new physics
Edcel Salumbides - *Vrije Universiteit, Amsterdam, The Netherlands*
- 14:30 - 14:55
(20'+5') Catalytic properties at the nanoscale probed by surface X-ray diffraction and coherent diffraction imaging
David Simonne - *Synchrotron SOLEIL, Gif-sur-Yvette and CEA Grenoble, Grenoble, France*
- 14:55 - 15:20
(20'+5') Study of post collision interaction effect following K shell photoionization of solvated ions
Bastien Lutet-Toti - *LCPMR, Paris, France*
- 15:20 - 15:45
(20'+5') Green synthesis of IrO₂ nanocages for the production of hydrogen: A contribution of in situ QUICK X-ray absorption spectroscopy
Marion Giraud - *ITODYS, Paris, France*
- 15:45 - 16:15 *Coffee break*
- 16:15 - 16:45
(25'+5') Shaping plasmonic supercrystals by nesting shapes
Cyril Hamon - *Laboratoire de Physique des Solides, Orsay, France*
- 16:45 - 17:10
(20'+5') The SOLEIL view on and astronomical detection of the ¹³C isotopic species of ethyl cyanide in vibrational excitation
Christian P. Endres - *Max-Planck-Institut für extraterrestrische Physik, Garching Germany*
- 17:10 - 17:35
(20'+5') Evolution of active species in homogenous Ru-based catalyst in liquid phase under high pressures and temperatures
Elizaveta Kozyr - *Department of Chemistry, University of Turin, Italy*
- 17:35 - 18:00
(20'+5') Reactivity of the HCO⁺/HOC⁺ isomers as a function of photon and collision energy for astrochemistry
Nicolas Solem - *Institut de Chimie-Physique, Orsay, France*



Parallel Session Schedule

Dynamic, reactivity and Chemical analysis
(Diluted Matter & Chemistry)

Chairpersons: A. Tougerti, P. Asselin, F. Carn, H. Dossmann

*SOLEIL - Reception Building Auditoriums
Ground Floor & PA.1.12 Rooms*

Friday, January 20th, 2022

- 09:00 - 09:30
(25'+5') Microfluidic analysis at the Paris-Saclay Institute of Physical Chemistry
Antoine Pallandre - *Institut de Chimie Physique, Orsay, France*
- 09:30 - 09:55
(20'+5') Phthalocyanines in the gas-phase from Valence to core-shell electron spectroscopy
Gildas Goldsztejn - *Institut des Sciences Moléculaires d'Orsay, Orsay, France*
- 09:55 - 10:20
(20'+5') Study chemical & structural evolution of Mn and Ti in disordered rocksalt $\text{Li}_2\text{Mn}_{1-x}\text{Ti}_x\text{O}_2\text{F}$
cathode materials through operando XAFS
Yang Hu - *Helmholtz-Institute Ulm, Ulm, Germany*
- 10:20 - 10:45
(20'+5') Probing the photodynamics of cyano-PAHs in the vacuum-ultraviolet range
Madhusree Roy Chowdhury - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 10:45 - 11:15 *Coffee break*



Parallel Session Schedule

Life & Earth Sciences
(Biology / Cultural heritage / Health & Environment / Geoscience)

Chairpersons: B. Masquida, R. Le Hir, R. Marsac, S. Raneri

SOLEIL Auditorium - Main Building

Thursday, January 19th, 2023

- 14:00 - 14:30
(25'+5')
- The interactions between metal(loid)s and environmental plastics: Chromium and arsenic examples
Charlotte Catrouillet - *Institute de physique du globe de Paris, France*
- 14:30 - 14:55
(20'+5')
- Lanthanide distribution in Daphnia magna via micro and nano S-XRF imaging
Marion Revel - *Hamburg University of Applied Science, Hamburg, Germany*
- 14:55 - 15:20
(20'+5')
- Probing chromium and manganese speciation in Chinese RED Soils
Xiaoquan Qin - *Institut de Physique du Globe de Paris, France*
- 15:20 - 15:45
(20'+5')
- Unravelling the pathways of cadmium in cacao
Géraldine Sarret - *ISTERRE, Grenoble, France*
- 15:45 - 16:15
- Coffee Break*
- 16:15 - 16:45
(25'+5')
- Synchrotron-based X-ray imaging of pigments and secondary products in Cimabue's ceiling paintings of the upper basilica of Assisi
Ermano Avranovich Clerici - *Antwerpen University, Belgium*
- 16:45 - 17:10
(20'+5')
- Synchrotron μ -XRF imaging and μ -XANES spectroscopy at the cultural heritage dedicated PUMA beamline at SOLEIL
Alessandra Gianoncelli - *Elettra Sincrotrone, Trieste, Italy*
- 17:10 - 17:35
(20'+5')
- Chemical imaging at PUMA, SOLEIL, of samples of polychrome cave art from Font-de-Gaume cave to validate in-situ results
José Tapia - *IRCP Chimie ParisTech., Paris, France*
- 17:35 - 18:00
(20'+5')
- Synchrotron X-ray spectro-imaging clarifies the anatomy and taphonomy of amphibians from the Montceau-les-Mines lagerstätte
Pierre Gueriau - *IPANEMA, Saint-Aubin, France*



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Friday, January 20th, 2023

- 09:00 - 09:30
(25'+5') Structural studies of antibody antigen complexes
Félix Rey - Institut Pasteur, Paris, France
- 09:30 - 09:55
(20'+5') Why do we see Amyloid- β plaques in phase-contrast imaging?
Mathieu Chourrout - Lyon Neuroscience Research Center, Bron, France
- 09:55 - 10:20
(20'+5') Synchrotron based X-ray microtomography reveals cellular morphological features of developing wheat grain
David Legland - INRAE, Nantes, France
- 10:20 - 10:45
(20'+5') Multimetal methyl transferase making methanogenesis
Cameron Fyfe - MICALIS Institut, Jouy en Josas, France
- 10:45 - 11:15 Coffee Break



Parallel Session Schedule

New Materials (Structure / Electronic Properties / Surfaces & Interfaces)

Chairpersons: E. Frantzeskakis, A. Bordage, D. Pierucci, F. Cheynis

SOLEIL - Main Building
Libra, Phénix, Pixys & Colomba Rooms

Thursday, January 19th, 2023

- 14:00 - 14:30 (25'+5') From multiferroicity to superconductivity: 1D Fe spin ladder under pressure
Victor Balédent - *Laboratoire de Physique des Solides, Orsay, France*
- 14:30 - 14:55 (20'+5') Operando XAS investigation of bimetallic iron–molybdenum sulfide electrocatalysts for the hydrogen evolution reaction in proton exchange membrane electrolyzers
Anastassiya Khan - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 14:55 - 15:20 (20'+5') UV and X-ray stability of CsPbBr₃ perovskite nanocrystals
Azmat Ali - *Institut des NanoSciences de Paris, France*
- 15:20 - 15:45 (20'+5') The effect of side chain structure on self-organization properties and the electronic structure of low band gap polymers
David Batchelor - *Karlsruher Institut für Technologie, Eggenstein-Leopoldshafen, Germany*
- 15:45 - 16:15 *Coffee Break*
- 16:15 - 16:45 (25'+5') Multi beamlines investigation of HgTe nanocrystals electronic structure
Emmanuel Lhuillier - *Institut des NanoSciences de Paris, France*
- 16:45 - 17:10 (20'+5') In situ XPS Synchrotron study of solid-liquid interphase in lithium-ion batteries
Federico Giovanni Capone - *PHENIX, Paris and Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 17:10 - 17:35 (20'+5') Resonant Auger spectroscopy on adsorbed xenon on gold, silver and copper substrates
Fredrik O.L. Johansson - *Uppsala University, Uppsala, Sweden*
- 17:35 - 18:00 (20'+5') Self-assembled monolayers of functionalised spin crossover complexes
Patrick Rosa - *Université de Bordeaux, Pessac, France*



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Friday, January 20th, 2023

- 09:00 - 09:30
(25'+5')
- Fundamental mechanisms of stress-build-up during thin films formation: multimethod real time Synchrotron experiments
Bärbel Krause - *Karlsruher Institut für Technologie, Germany*
- 09:30 - 09:55
(20'+5')
- Probing the chemical and electronic structure of BaTiO₃ ultrathin films using X-ray spectroscopy
Sara Gonzalez - *Institut des Nanotechnologies de Lyon, Villeurbanne, France*
- 09:55 - 10:20
(20'+5')
- Carbon-based defects in pristine α boron
Yeonsoo Cho - *Laboratoire des Solides Irradiés, Palaiseau, France*
- 10:20 - 10:45
(20'+5')
- Band structure and Rashba effect of ferroelectric α -GeTe as function of the thickness
Alexandre Llopez - *CINaM, Marseille, France*
- 10:45 - 11:15 *Coffee break*