



Synchrotron SOLEIL, Saint-Aubin - France

Programme

Thursday, January 16th

SOLEIL AUDITORIUM

- 09:00 - 10:00 Registration & coffee
- 10:00 - 10:10 Welcome / Introduction
Nicolas Delsuc - *ORGUES Chairperson*
- 10:10 - 10:20 The word of SOLEIL General Director
Jean Dailant
- 10:20 - 11:05 Observation of the transition to metal hydrogen: Why and how the use of SOLEIL infrared source played a crucial role.
Paul Loubeyre - *CEA, DAM, DIF, Arpajon, France*
- 11:05 - 11:50 Hierarchical self-assembly of polyoxometalate-based hybrids driven by metal coordination and electrostatic interactions
Guillaume Izzet - *Institut Parisien de Chimie Moléculaire, Sorbonne Université, Paris, France*
- 11:50 - 12:10 Peer Review Committee Chairman - 1 Diluted matter - **Roland Thissen**
Peer Review Committee Chairman - 2 Surfaces / Interfaces - **Richard Mattana**
- 12:10 - 14:00 Lunch – **SOLEIL Restaurant**

Parallel sessions (see the detailed programme below)

- 14:00 - 16:00
- Ancient & New Materials (Cultural heritage / Structure / Electronic Properties / Surfaces & Interfaces) **SOLEIL Auditorium**
 - Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry) **CEA BLOCH Auditorium**
 - Life & Earth Sciences (Biology / Health & Environment / Geoscience) **SOLEIL Reception Building Auditorium**
- 16:00 - 16:30 Coffee break

Parallel sessions (see the detailed programme below)

- 16:30 - 18:00
- Ancient & New Materials (Cultural heritage / Structure / Electronic Properties / Surfaces & Interfaces) **SOLEIL Auditorium**
 - Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry) **CEA BLOCH Auditorium**
 - Life & Earth Sciences (Biology / Health & Environment / Geoscience) **SOLEIL Reception Building Auditorium**
- 18:00 - 20:00 Posters session / Commercial exhibition / ORGUES and AFURS Booth
Visit of Beamlines AILES, CASSIOPEE, SMIS
- 20:00 - 21:30 Buffet / Award of the best student poster



Friday, January 17th

Parallel sessions (see the detailed programme below)

- 9:00 - 11:00
- Ancient & New Materials (Cultural heritage / Structure / Electronic Properties / Surfaces & Interfaces) **SOLEIL Auditorium**
 - Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry) **CEA BLOCH Auditorium**
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- 11:00 - 11:30 *Coffee break - **SOLEIL Auditorium Cafeteria***
- 11:30 - 12:30 Round Table: *Upgrade: Beamtime organisation impact - **SOLEIL Auditorium***
- 12:30 - 14:00 *Lunch – **SOLEIL Restaurant***
- 14:00 - 17:00 **Chemometry in Quick XAS** tutorial (limited to the register participants)
Training room, T5 Building



Parallel Sessions Schedule

Ancient & New Materials

(Cultural heritage / Structure / Electronic Properties / Surfaces & Interfaces)

Chairpersons:

Emmanouil Frantzeskakis, Karine Provost, Noemi Carmona-Tejero,
Thomas Maroutian & Anne Charrier

Thursday, January 16th

SOLEIL AUDITORIUM

- 14:00 - 14:30 (25'+5') New 2D materials: Silicene and phosphorene
Hamid Oughaddou - Institut des Sciences Moléculaires d'Orsay, France
- 14:30 - 15:00 (25'+5') Electronic properties of SiO/GeO ultra-thin films from ARPES and DFT calculations
Yannick Fagot-Revurat - Institut Jean Lamour, Vandoeuvre-Les-Nancy, France
- 15:00 - 15:20 (15'+5') Direct observation of band gap renormalization in layered indium selenide
Zhensheng Chen - Laboratoire de Physique des Solides, Orsay, France
- 15:20 - 15:40 (15'+5') Influence of a metal surface on spin-crossover molecules
Amandine Bellec - Laboratoire Matériaux et Phénomènes Quantiques, Paris, France
- 15:40 - 16:00 (15'+5') Temperature dependent magnetization profile in Gd/Co/Pt ultrathin films
Vartika Bansal - Université Grenoble-Alpes, CNRS, INP, Institut NEEL, Grenoble, France
- 16:00 - 16:30 Coffee break
- 16:30 - 17:00 (25'+5') nanoARPES science and technique
Pavel Dudin - Synchrotron SOLEIL, Gif-sur-Yvette, France
- 17:00 - 17:20 (15'+5') Characterization by Synchrotron Radiation at MARS beamline, of highly irradiated 316 austenitic stainless steel
Alexandre Renault-Laborne - CEA Saclay, Gif-sur-Yvette, France
- 17:20 - 17:40 (15'+5') Anomalous diffraction study of germanite, a thermoelectric material
Carmelo Prestipino - Institut des Sciences Chimiques de Rennes, France
- 17:40 - 18:00 (15'+5') Probing photoinduced picosecond shear strain in ferroelectrics with time-resolved X-ray diffraction
Pascal Ruello - Institut des Molécules et Matériaux du Mans, France



Parallel Sessions Schedule

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Friday, January 17th

SOLEIL AUDITORIUM

- 09:00 - 09:30
(25'+5') Photomagnetism in Prussian Blue analogs : Benefits from a multi-beamlines investigation
Amélie Bordage - Institut de Chimie Moléculaire et des Matériaux d'Orsay, France
- 09:30 - 10:00
(25'+5') PUMA, a new beamline optimised for Cultural Heritage research
Sebastian Schoeder - Synchrotron SOLEIL, Gif-sur-Yvette, France
- 10:00 - 10:20
(15'+5') High pressure study on the metal-organic framework MIL-101 filled with metal nanoparticles
Anna Celeste - Synchrotron SOLEIL, Gif-sur-Yvette & Institut de Chimie et des Matériaux Paris-Est, Thiais, France
- 10:20 - 10:40
(15'+5') Strong spin-lattice coupling in the frustrated pentagonal magnet $\text{Bi}_2\text{Fe}_4\text{O}_9$ revealed by infrared spectroscopy measurements at high pressure
Marine Verseils - Synchrotron SOLEIL, Gif-sur-Yvette, France
- 10:40 - 11:00
(15'+5') The use of wiggler white beam: New opportunities for high pressure science
Jean-Paul Itié - Synchrotron SOLEIL, Gif-sur-Yvette, France
- 11:00 - 11:30 Coffee break



Parallel Sessions Schedule

Dynamic, Reactivity & Chemical analysis (Diluted Matter & Chemistry)

Chairpersons:

Asma Tougerti, Nicolas Delsuc, Pierre Asselin and Renaud Guillemin

Thursday, January 16th

CEA BLOCH AUDITORIUM

- 14:00 - 14:30
(25'+5')
- The VUV photoionization of small radicals on the DESIRS beamline: Spectroscopy and cross section determination
Séverine Boyé-Péronne - *Institut des Sciences Moléculaires d'Orsay, France*
- 14:30 - 15:00
(25'+5')
- Photoelectron spectroscopy of liquid jets at GALAXIES and PLEIADES beamlines
Christophe Nicolas - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 15:00 - 15:20
(15'+5')
- NH₃ ultrafast dissociation probed by Auger electron-ion coincidences
Ferzad Hosseini - *Laboratoire de Chimie Physique-Matière et Rayonnement, Paris, France*
- 15:20 - 15:40
(15'+5')
- Surface chemistry of colloidal gold nanoparticles generated by laser ablation
Anna Lévy - *Institut des NanoSciences de Paris, France*
- 15:40 - 16:00
(15'+5')
- Energy, environment for a sustainable development. contribution of a 4th generation Synchrotron
Valerie Briois - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 16:00 - 16:30
- Coffee break
- 16:30 - 17:00
(25'+5')
- Double layer at an electrified interface, beyond the textbook: Water matters
Martina Havenith - *Ruhr-Universität Bochum, Germany*
- 17:00 - 17:30
(25'+5')
- Exploiting the THz Synchrotron Radiation at its highest resolution and in a broadband fashion by heterodyne techniques
Marie-Aline Martin-Drumel - *Institut des Sciences Moléculaires d'Orsay, France*
- 17:30 - 17:50
(15'+5')
- New line positions analysis of the ν_3 bands of ³⁵CINO₂ and ³⁷CINO₂ at 370 cm⁻¹
Anusanth Anantharajah - *Laboratoire Interuniversitaire des Systèmes Atmosphériques, Créteil, France*



Parallel Sessions Schedule

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Friday, January 17th

CEA BLOCH AUDITORIUM

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|---------------------------|--|
| 09:00 - 09:30
(25'+5') | Lanthanide oxysulfide nanoplates: Growth mechanism and reactivity from ex situ and in situ spectroscopies
Sophie Carenco - <i>Laboratoire de Chimie de la Matière Condensée de Paris, France</i> |
| 09:30 - 10:00
(25'+5') | Infrared and terahertz spectroscopy under fine-controlled conditions
Pascale Roy - <i>Synchrotron SOLEIL, Gif-sur-Yvette, France</i> |
| 10:00 - 10:20
(15'+5') | Aerosol synthesis of thermally stable porous noble metals and alloys by using bi-functional templates: A mechanistic study
Marion Giraud - <i>Laboratoire ITODYS, Paris, France</i> |
| 10:20 - 10:40
(15'+5') | Monitoring catalysts at work: The advantages of combined operando EPR/XAS/ATR-IR/UV-vis spectroscopy with multivariate analysis
Jabor Rabeah - <i>Leibniz Institute, Rostock, Germany</i> |
| 10:40 - 11:00
(15'+5') | Phase transition in a colloidal membrane: Where is the hexatic phase ?
Doru Constantin - <i>Laboratoire de Physique des Solides, Orsay, France</i> |
| 11:00 - 11:30 | Coffee break |



Parallel Sessions Schedule

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

Chairpersons:
Benoît Masquida, Rozenn Le Hir and Remi Marsac

Thursday, January 16th

SOLEIL Reception Building AUDITORIUM

- 14:00 - 14:30
(25'+5') What about collagen in biomaterials?
Carole Aimé – *UMR Pasteur, Paris, France*
- 14:30 - 15:00
(25'+5') **Andrea Somogyi** - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 15:00 - 15:20
(15'+5') 2D mapping bones osteosarcoma with micro-sized X-ray beam
Arnaud Bardouil - *Institut de Physique de Rennes, France*
- 15:20 - 15:40
(15'+5') A BioSAXS study of cubic liquid crystalline nanostructures involving catalase and curcumin in view of therapeutic applications
Angelina Angelova - *Institut Galien, Châtenay-Malabry, France*
- 15:40 - 16:00
(15'+5') Light-driven folding of G-quadruplex DNA structures probed by Synchrotron Radiation circular dichroism
Kevin Laouer - *Laboratoire d'Optique et Biosciences, École Polytechnique, Palaiseau, France*
- 16:00 - 16:30
Coffee break
- 16:30 - 17:00
(25'+5') Amber fossils revealed by Synchrotron imaging
Vincent Perrichot - *Géosciences Rennes, France*
- 17:00 - 17:30
(25'+5') Microfluidic chips for crystal growth and serial crystallography
Claude Sauter - *Architecture et Réactivité de l'arN, I.B.M.C., Strasbourg, France*
- 17:30 - 17:50
(15'+5') Energy, environment for a sustainable development. Contribution of a 4th generation Synchrotron
Delphine Vantelon - *Synchrotron SOLEIL, Gif-sur-Yvette, France*



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SOLEIL Reception Building AUDITORIUM

- 09:00 - 09:30
(25'+5')
Synchrotron time lapse imaging of lignocellulose biomass hydrolysis
Marie-Françoise Devaux ou Fabienne Guillon – *INRA, Biopolymères Interactions Assemblages, Nantes, France*
- 09:30 - 10:00
(25'+5')
PX2 - *Synchrotron SOLEIL, Gif-sur-Yvette, France*
- 10:00 - 10:20
(15'+5')
Cryo-EM structure of an archaeal translation initiation complex at 3.1 Å resolution
Pierre-Damien Coureux - *Laboratoire de Biochimie, Ecole polytechnique, Palaiseau, France*
- 10:20 - 10:40
(15'+5')
How fluorescence has enlightened antibiotic transport and resistance in Gram-negative bacteria
Muriel Masi - *Institut de Biologie Intégrative de la Cellule, Orsay, France*
- 10:40 - 11:00
(15'+5')
Anomalous magnesium: Search for the metal ions in the ribosome
Alexey Rozov - *Institut de Génétique et de Biologie Moléculaire et Cellulaire, Strasbourg, France*
- 11:00 - 11:30
Coffee break