

## Synchrotron SOLEIL, Saint-Aubin - France

### Programme

**Thursday, January 16<sup>th</sup>**

**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 (5mn) - **Roland Thissen**  
Peer Review Committee Chairman - 2 Surfaces / Interfaces (5mn) - **Richard Mattana**  
Questions 10mn

12:10 - 14:00 *Lunch*

#### **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**

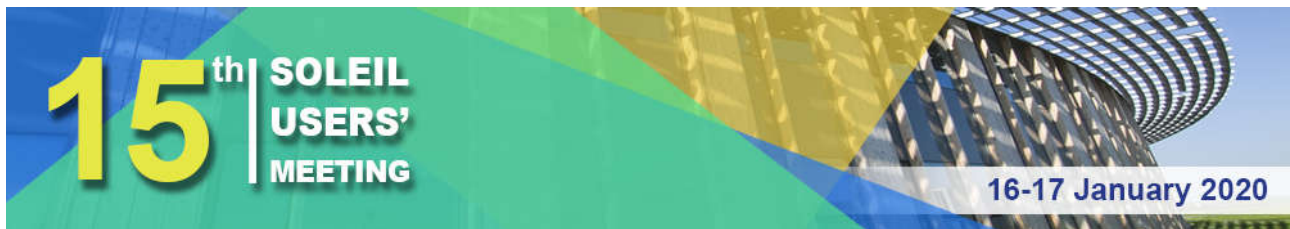
16:00 - 16:30 *Coffee break*

#### **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**  
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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*

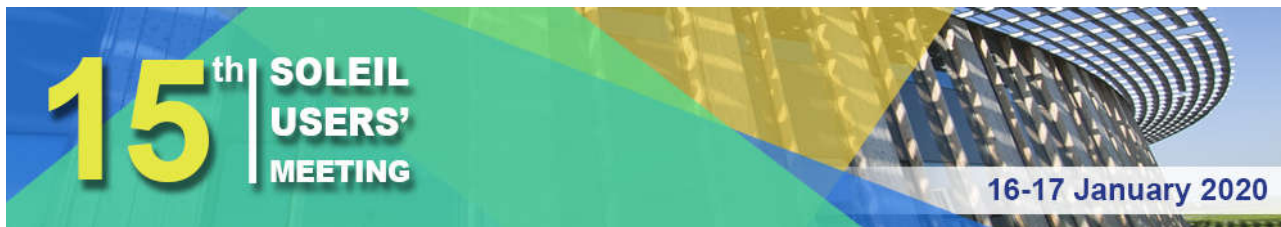


Friday, January 17<sup>th</sup>

**SOLEIL AUDITORIUM**

**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**
  - Life & Earth Sciences (Biology / Health & Environment / Geoscience) - **SOLEIL Reception Building Auditorium**
  
- 11:00 - 11:30 *Coffee break - **Main building***
  
- 11:30 - 12:30 Round Table
  - *Upgrade: beamtime organisation impact*
  
- 12:30 - 14:00 *Lunch*
  
- 14:00 - 17:00 **Chemometry in Quick XAS** Tutorial : **Training room – T5 Building**



## Parallel Sessions Schedule

### Ancient & New Materials

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

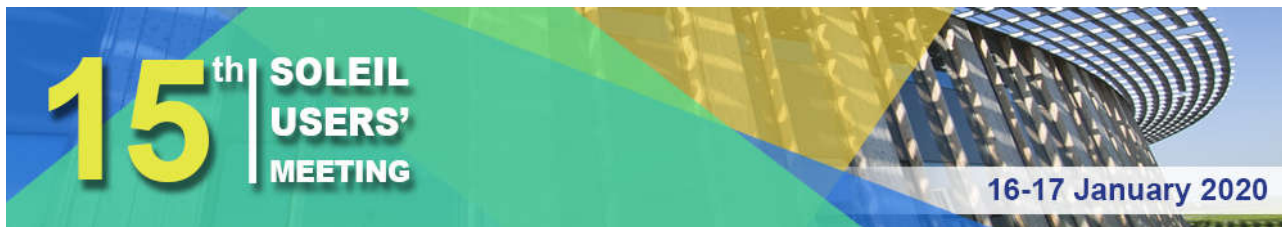
Chairpersons:

Marie d'Angelo, Karine Provost, Noemi Carmona-Tejero, Thomas Maroutian & Frédéric Datchi

#### Thursday, January 16<sup>th</sup>

**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

### Ancient & New Materials

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

Chairpersons:

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### Friday, January 17<sup>th</sup>

#### 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 (Main building)*



## Parallel Sessions Schedule

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

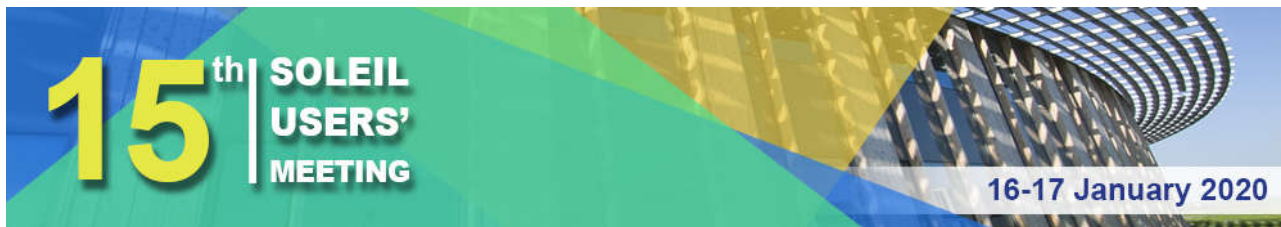
Chairpersons:

Asma Tougerti, Nicolas Delsuc, Pierre Asselin and Renaud Guillemin

**Thursday, January 16<sup>th</sup>**

**CEA BLOCH AUDITORIUM**

- |                           |  |
|---------------------------|--|
| 14:00 - 14:30<br>(25'+5') | The VUV photoionization of small radicals on the DESIRS beamline: Spectroscopy and cross section determination<br><b>Séverine Boyé-Péronne</b> - <i>Institut des Sciences Moléculaires d'Orsay, France</i>   |
| 14:30 - 15:00<br>(25'+5') | Photoelectron spectroscopy of liquid jets at GALAXIES and PLEIADES beamlines<br><b>Christophe Nicolas</b> - <i>Synchrotron SOLEIL, Gif-sur-Yvette, France</i>  |
| 15:00 - 15:20<br>(15'+5') | NH <sub>3</sub> ultrafast dissociation probed by Auger electron-ion coincidences<br><b>Ferzad Hosseini</b> - <i>Laboratoire de Chimie Physique-Matière et Rayonnement, Paris, France</i>   |
| 15:20 - 15:40<br>(15'+5') | Surface chemistry of colloidal gold nanoparticles generated by laser ablation<br><b>Anna Lévy</b> - <i>Institut des NanoSciences de Paris, France</i>  |
| 15:40 - 16:00<br>(15'+5') | Energy, environment for a sustainable development. contribution of a 4th generation Synchrotron<br><b>Valerie Briois</b> - <i>Synchrotron SOLEIL, Gif-sur-Yvette, France</i>   |
| 16:00 - 16:30             | <i>Coffee break</i>  |
| 16:30 - 17:00<br>(25'+5') | Double layer at an electrified interface, beyond the textbook: Water matters<br><b>Martina Havenith</b> - <i>Ruhr-Universität Bochum, Germany</i>  |
| 17:00 - 17:30<br>(25'+5') | Exploiting the THz Synchrotron Radiation at its highest resolution and in a broadband fashion by heterodyne techniques<br><b>Marie-Aline Martin-Drumel</b> - <i>Institut des Sciences Moléculaires d'Orsay, France</i>   |
| 17:30 - 17:50<br>(15'+5') | New line positions analysis of the $\nu_3$ bands of <sup>35</sup> CINO <sub>2</sub> and <sup>37</sup> CINO <sub>2</sub> at 370 cm <sup>-1</sup><br><b>Anusanth Anantharajah</b> - <i>Laboratoire Interuniversitaire des Systèmes Atmosphériques, Créteil, France</i> |



## Parallel Sessions Schedule

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

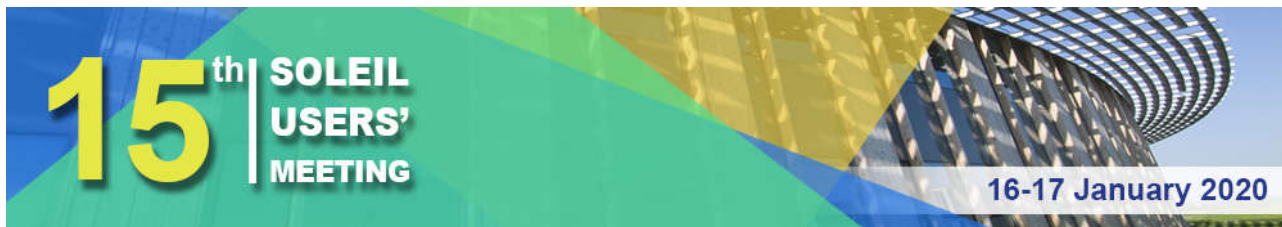
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**Friday, January 17<sup>th</sup>**

**CEA BLOCH AUDITORIUM**

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



## Parallel Sessions Schedule

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

Chairpersons:  
Benoît Masquida, Rozenn Le Hir and Remi Marsac

Thursday, January 16<sup>th</sup>

*SOLEIL Reception Building AUDITORIUM*

- 14:00 - 14:30  
(25'+5') What about collagen in biomaterials?  
**Carole Aimé** – UMR Pasteur – Paris
- 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')  
**PX 1 / 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 (Main building)*