

Program

DAY1

Monday, November 24, 2025

[Venue] Capelle amphitheater in INSA Lyon

8:00-8:20 Reception & Welcome Coffee

8:20-9:00 Opening remarks

- Damien FABREGUE, Vice-President for International Affairs, INSA Lyon
- Richard PERKINS, Director of International Relations Development, Centrale Lyon
- Marie-Pierre FAVRE, CGO, Vice-President for Comprehensive Internationalization, Tohoku University
- Osamu OGATA, Consul, Head of the Consular Office of Japan in Lyon
- Toshiyuki TAKAGI, Director of Japan Society for the Promotion of Science (JSPS) Strasbourg Office

Introductory speeches

- Lucile JOLY-POTTUZ, INSA Lyon and Frédéric GILLOT, Centrale Lyon
- Gota KIKUGAWA and Hiroshi JINNAI, Tohoku University

Photo session

9:00-10:20 Session 1: Synchrotron and materials

Chairperson: Hiroshi JINNAI, Tohoku University

9:00-9:40 Wataru YASHIRO, Tohoku University

Recent advances of 4D synchrotron X-ray tomography

9:40-10:20 Wolfgang LUDWIG, INSA Lyon

Diffraction Microstructure Imaging across length scales

10:20-10:40 Break

10:40-12:00 Session 2: Energy storage material design

Chairperson: Mickaël LALLART, INSA Lyon

10:40-11:20 Chiharu TOKORO, Waseda University

Chemical-Free and Heat-Free Precision Separation of Lithium-Ion Battery Active Materials via Electrical Pulsed Discharge for Direct Recycling

11:20-12:00 Claire VILLEVIEILLE, Grenoble-INP

Operando monitoring of batteries: Understanding transport limitations

12:00-14:00 **Poster session and lunch**

14:00-15:20 **Session 3: Mechanism of energy dissipation**

Chairperson: Gota KIKUGAWA, Tohoku University

14:00-14:40 Sylvain MEILLE, INSA Lyon

Cracking mechanisms in nacre like ceramic

14:40-15:20 Ken NAKAJIMA, Institute of Science Tokyo

AFM Nanomechanics on Polymeric Materials

15:20-15:40 Break

15:40-17:00 **Session 4: Energy conversion**

Chairperson: Jean-Yves CAVAILLÉ, INSA Lyon

15:40-16:20 Hiroki KURITA, Tohoku University

Energy-harvesting and Mass Sensor Performance of Structurally Designed Fe-Co Magnetostrictive Alloy

16:20-17:00 Jean-Fabien CAPSAL, INSA Lyon

Electroactive soft materials for 4D printing applications: LIVE-MIRROR

17:00-17:20 **Closing of the day 1**

-Lucile JOLY-POTTUZ, INSA Lyon and Frédéric GILLOT, Centrale Lyon

-Gota KIKUGAWA and Hiroshi JINNAI, Tohoku University

Program

DAY2

Tuesday, November 25, 2025

**[Venue] Building W1, Amphitheater n.1 (9:00-10:20),
Amphitheater n.3 (10:40-17:20) in Centrale Lyon**

8:30-9:00 Reception & Welcome Coffee

9:00-10:20 **Session 5: Tribology / micro, nano / Lubrification**

Chairperson: Juliette CAYER BARRIOZ, Centrale Lyon

9:00-9:40 Takuya KUWAHARA, Osaka Metropolitan University

Can atomic-scale tribochemistry explain macroscale friction and wear?

9:40-10:20 Fabrice DASSENOY, Centrale Lyon

Nanoparticles as Next-Generation Lubricant Additives: Mechanisms, Performance and Challenges

10:20-10:40 Break

10:40-12:00 **Session 6: Energy efficiency and CFD**

Chairperson: Tetsuya UCHIMOTO, Tohoku University

10:40-11:20 Yoshiaki ABE, Tohoku University

Advances in Data-Driven Aeroelastic Analysis for Multidisciplinary Aircraft Design

11:20-12:00 Louise TOUALBI, ONERA

Experimental analysis of hardening mechanisms in an aluminum alloy manufactured by the L-PBF process

12:00-13:10 **Poster session and lunch**

13:10-14:30 **Session 7: Architected materials**

Chairperson: Bernard NORMAND, INSA Lyon

13:10-13:50 Makoto WATANABE, NIMS

Cracking Suppression and Microstructure Optimization in Additive Manufacturing of Ni-based Alloys

13:50-14:30 Clémence PETIT, Mines Saint-Etienne

Microwave sintering of architected ceramics shaped by additive manufacturing

14:30-14:50 Break

14:50-15:35 **Program presentations by French and Japanese agencies**

Chairperson: Toshiyuki TAKAGI, JSPS Strasbourg Office

-Léa DEBRAUX, Centre National de la Recherche Scientifique (CNRS)

-Hirotaka YAMADA, Japan Science and Technology Agency (JST)

-Natsuki SHODA, Japan Society for the Promotion of Science (JSPS) Strasbourg Office

15:35-17:00 **Round table: Energy Transition and Materials**

Topic 1: "Energy transition and materials for the future"

Chairperson: Gota KIKUGAWA, Tohoku University and Denis MAZUYER, Centrale Lyon

Panelists: - Wataru YASHIRO, Tohoku University
- Takuya KUWAHARA, Osaka Metropolitan University
- Kaoru MARUTA, Tohoku University
- Hiroki KURITA, Tohoku University
- Christine SIDOROFF, NTN SNR
- Oriane BAULIN, Newcleo
- Vincent FRIDRICI, Centrale Lyon
- Bernard NORMAND, INSA Lyon

Topic 2: "University or Institution-level strategy to facilitate international collaboration"

Chairperson: Ken NAKAJIMA, Institute of Science Tokyo and Mickaël LALLART, INSA Lyon

Panelists: - Kaoru MARUTA, Tohoku University
- Shigenao MARUYAMA, Tohoku University
- Marie-Pierre FAVRE, Tohoku University
- Hiroshi JINNAI, Tohoku University
- Marie-Christine BAIETTO, INSA Lyon
- Christophe CORRE, Centrale Lyon
- Daniel NELIAS, INSA Lyon
- Mathieu HAUTIER, Symbio

17:00-17:20 **Concluding remarks**

-Christophe CORRE, Director of Research and Innovation, Centrale Lyon

-Marie-Christine BAIETTO, Vice-President for Research, INSA Lyon

-Kaoru MARUTA, Director, Institute of Fluid Science, Tohoku University

-Hirotaka YAMADA, Director, JST Paris Office