

## OS22: AFI-2021 IFS Lyon Center Collaborative Research Forum

October 27, 2021

ROOM1

- OS22-1 /OS23-3  
14:45-15:00 **Local Stabilization Dynamics of a Methane/ammonia Non-premixed Jet Flame Up to Liftoff**  
Sophie Colson (Tohoku University, Japan), Manuel Kuhni (Université Claude Bernard Lyon 1, France), Akihiro Hayakawa, Hideaki Kobayashi (Tohoku University, Japan), Cedric Galizzi, Dany Escudie (Université Claude Bernard Lyon 1, France)
- OS22-2  
17:10-17:30 **Microstructure and Mechanical Properties of An Al-TiC Metal Matrix Composite Obtained by Reactive Synthesis**  
Hiroki Kurita, Sho Takeda (Tohoku University, Japan), Olivier Dezellus (Claude Bernard University Lyon 1, France), Tetsuya Uchimoto, Fumio Narita (Tohoku University, Japan)
- OS22-3  
17:30-17:50 **Effect of Flow-Focusing Channel Geometry on Field-Assisted Alignment of Cellulose Nanofibrils**  
Hidemasa Takana, Satoru Fukumori (Tohoku University, Japan)
- OS22-4  
17:50-18:10 **Methodology to Detect Water Uptake in Polymer Materials Using Non-Contact Capacitor Sensor**  
Lucas Ollivier-Lamarque (Tohoku University / ELYTMAX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan / INSA Lyon, France), Tetsuya Uchimoto (Tohoku University / ELYTMAX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Nicolas Mary (ELYTMAX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan / INSA Lyon, France), Sabrina Marcelin, Sébastien Livi (INSA Lyon, France)
- OS22-5  
18:10-18:30 **MAGIC: Magnetic AGing in ferromagnetIC**  
Benjamin Ducharne (ELYTMAX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Laurent Model, Marie-Ange Raulet, Rania Saoudi (Université de Lyon, France), Tetsuya Uchimoto (Tohoku University, Japan)

October 28, 2021  
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- OS22-6 **Heusler Alloy Based Heat Engine with Pyroelectric Energy Conversion**  
15:30-15:50 Mickaël Lallart (INSA-Lyon, France), Hiroyuki Miki (Tohoku University, Japan), Linjuan Yan (INSA-Lyon, France), Gaël Sebald, Gildas Diguët (ELyTMaX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Makoto Ohtsuka (Tohoku University, Japan), Manfred Kohl (Karlsruhe Institute of Technology, Germany)
- OS22-7 **In-Flight Thermal Gradient of Polymer Particles During Cold Spray Process**  
15:50-16:10 Chrystelle Bernard (Tohoku University / ELyTMaX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Hidemasa Takana, Gildas Diguët (Tohoku University, Japan), Olivier Lame (Université de Lyon, France), Jean-Yves Cavaille (ELyTMaX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Kazuhiro Ogawa (ELyTMaX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University / Tohoku University, Japan)
- OS22-8 **Multiscale Simulation of Carbon Electromigration in Iron**  
16:10-16:30 Kairi Kita, Takuya Mabuchi (Tohoku University, Japan), Sofia Molina-Montoya, Christophe Adessi, Patrice Chantrenne (Université de Lyon, France), Takashi Tokumasu (Tohoku University, Japan)
- OS22-9 **Experimental Evaluation of the Relationship between Pore Patterning and Protein Hindered Diffusion**  
16:30-16:50 Atsuki Komiya, Ruiyao Zhu (Tohoku University, Japan), Juan F. Torres (Australian National University, Australia), Yuki Kanda (Tohoku University, Japan), Sébastien Livi (INSA Lyon, France)
- OS22-10 **Stability and Transition to Turbulence of Taylor Vortex in a Gap between Rotating Two Cones**  
17:10-17:30 Takahiro Adachi, Widiast Toshiharu, Kana Akinaga (Akita University, Japan), Atsuki Komiya (Tohoku University, Japan), Daniel Henry, Valery Botton (Lyon University (INSA), France)
- OS22-11 **Monte Carlo Studies on 3D Skyrmion Stability and Shape Deformation under Uniaxial Stress**  
17:30-17:50 Hiroshi Koibuchi, Satoshi Hongo (National Institute of Technology (KOSEN), Sendai College, Japan), Fumitake Kato (National Institute of Technology (KOSEN), Ibaraki College, Japan), Sahbi El Hog (Université de Monastir, Tunisie), Gildas Diguët, Tetsuya Uchimoto (Tohoku University / ELyTMaX UMI 3757, CNRS – Université de Lyon – Tohoku University, International Joint Unit, Tohoku University, Japan), Hung T. Diep (CY Cergy Paris University, France)

- OS22-12     **Mode Decomposition Method for Extracting Characteristic Structures Related to the Subsonic Jet Noise Generation**  
17:50-18:10     Shota Morita, Aiko Yakeno (Tohoku University, Japan), Christophe Bogey (Université Claude Bernard Lyon I, France), Shigeru Obayashi (Tohoku University, Japan)
- OS22-13     **Coupled Computing of Fluid-Structure Interaction Problems for Multiphase Energy Systems**  
18:10-18:30     Jun Ishimoto (Tohoku University, Japan), Thomas Elguedj (INSA de Lyon, France)
- OS22-14     **Modelling Self-Organization by Oxygen with Reaction-Diffusion Models**  
18:30-18:50     Olivier Cochet-Escartin, Mete Demircigil (Université de Lyon, France), Satomi Hirose (Tohoku University, Japan), Vincent Calvez (Université de Lyon, France), Kenichi Funamoto (Tohoku University, Japan), Christophe Anjard, Jean-Paul Rieu (Université de Lyon, France)