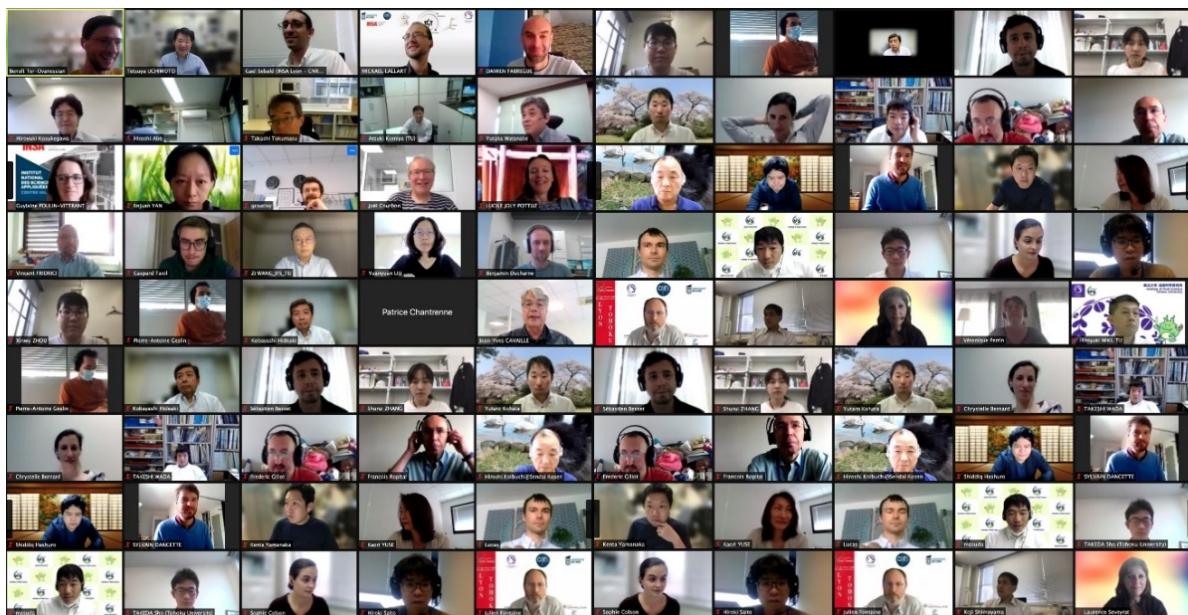


ELyT Workshop 2021

Due to the pandemic of Covid-19, ELyT Workshop 2021 was held online, from June 21 to 25, 2021. The workshop gathered 123 participants (63 from Japan, 60 from France), and consisted of 3 invited talks, 29 oral presentations, 4 virtual lab tours or live experiments, 6 posters and 1 panel discussion. As with the previous workshops, we were able to share the results of collaborative research and have very fruitful discussions for the future.



Lyon Center
Institute of Fluid Science, Tohoku University

Online but not lifeless

Collaborations and friendships are stronger than any pandemic situation. Following the success of remote collaborations in this unprecedented situation, ELYT/LyonSE&N workshop is maintained this year as a virtual conference. For sure, the objectives of showing common research results and exchanging great ideas and more altogether will resist to the physical, but not human, distances.

Venue

Conference presentations will be held using Zoom.



Link will be sent upon registration.

Show your lab and experiments!

Dedicated slots will be devoted to Lab. tours. If you want to show your premise and outstanding equipment, feel free to contact us.

Also, live demonstration of experiments during talks are encouraged!

Celebrating ELYT Global renewal and Core-to-Core program

2021 is also a special year in the sense that ELYT Global has been renewed as an International Research Network (IRN), while Tohoku IFS was awarded a Core-to-Core (C2C) program on "Construction of an international research exchange center for ammonia combustion and materials toward the realization of a low-carbon society" from the JSPS. A special C2C session will be held during the workshop.

Interact together!

Feel the impression of a real conference thanks to Gather Town®! Interact and discuss in small groups, draw together on white boards and more! Connection link will be provided during the workshop.



Register now!

Conference dates: June 21st-25th, 2021 (15:30-18:00 JST / 8:30-11:00 CEST)

Registration link: <https://forms.gle/KV3Wu3Gb4DBaREka8>

Contact: elytws@grp.tohoku.ac.jp

More information on <https://www.elyt-lab.com/en/content/elyt-workshop-2021>

| Start FR | End FR | Day 1 (June 21st) | Day 2 (June 22nd) | Day 3 (June 23rd) | Day 4 (June 24th) | Day 5 (June 25th) | Start JP | End JP |
|----------|--------|--|--|---|---|--|----------|--------|
| 08:30 | 08:35 | Chair: T. Shoji / J.-Y. Cavallé | Chair: M. Ohta / D. Fabregue | Chair: H. Miki / M. Lallart | Chair: T. Uchimoto / G. Sebold | Chair: K. Ogawa / N. Mary | | |
| 08:35 | 08:40 | Opening - A.-C. Hladky (CNRS) - M. Kotani (Tohoku) | Introduction of "Core to Core program" K. Maruta and T. Tokumasu | Invited Elie Lefevre, Marion Woytasik, Xavier Leroux, Fabien Parrain Biomechanical energy harvesting for leadless pacemaker application | K. Kita, T. Mabuchi, P. Chantrenne, T. Tokumasu CarboEDiffSim: Simulation off Carbon electro-diffusion in iron with phase change G. Boulon, Y. Guyot, C. Djardine, A. Yoshikawa, K. Kanada, S. Kurokawa, N. Sakurura, M. Empizo, M. Yuki, M. Cadatal-Raduban, T. Murata, K. Kawano, K. Yamano, T. Shimizu, M. Guzik Research of 5d-4f fast emission in trivalent lanthanides-doped fluorooxide glasses as neutron scintillator materials | Invited J. Kittel and F. Ropital Presentation of the corrosion loop CORTEX | 15:30 | 15:35 |
| 08:40 | 08:45 | - M. Lallart/J. Fontaine, T. Uchimoto/Y. Sato (ElyT Global) - M.-C. Baietto (INSA Lyon) - K. Maruta (IFS Lyon) - C. Corre (ECL) | | | | | 15:35 | 15:40 |
| 08:45 | 08:50 | | | | | | 15:40 | 15:45 |
| 08:50 | 08:55 | | | | | | 15:45 | 15:50 |
| 08:55 | 09:00 | | | | | | 15:50 | 15:55 |
| 09:00 | 09:05 | M. Ohta, V. Fridrici | | | | | 15:55 | 16:00 |
| 09:05 | 09:10 | Tribology for health devices: 15 years of collaboration between Tohoku University (Ohta lab) and ECL (LTDs) | | | | | | |
| 09:10 | 09:15 | | | | | | | |
| 09:15 | 09:20 | S. Hirose, J.-P. Rieu, C. Anjard, O. Cochet-Escartin, K. Funamoto | | | | | | |
| 09:20 | 09:25 | Reduced oxygen availability triggers aerotaxis and aerokinesis of Dictyostellum | | | | | | |
| 09:25 | 09:30 | | | | | | | |
| 09:30 | 09:35 | | | | | | | |
| 09:35 | 09:40 | Y. Kohata, H. Anzai, M. Decroocq, S. Rit, C. Frindel, M. Ohta | | | | | | |
| 09:40 | 09:45 | Virtual Angiography System as a Platform for Blood Flow estimation | | | | | | |
| 09:45 | 09:50 | | | | | | | |
| 09:50 | 09:55 | Coffee break & Gathering | | | | | | |
| 09:55 | 10:00 | | | | | | | |
| | | Chair: J. Fontaine / H. Kurita | Chair: F. Gillot / A. Komiya | Chair: L. Joly-Pottuz / Y. Sato | Chair: V. Fridrici / A. Chiba | | | |
| 10:00 | 10:05 | G. Diguet, G. Sebold, M. Nakano, M. Lallart, J.-Y. Cavallé | Y. Kaneko, W. L. Sulen, C. A. Bernard, H. Saito, Y. Ichikawa, K. Ogawa | S. Dancette, Y. Amani, J. Luksch, A. Jung and E. Maire | G. Taxil, M. Lallart, G. Sebold, E. Lefevre, B. Ducharme, A. Bartaszyte, M. Ouhabaz, H. Kuwano, T. T. Nguyen | | | |
| 10:05 | 10:10 | MagnetoRheological Materials for energy conversion | Progressive improvement in deposition efficiency for cold sprayed fluoropolymer coatings | In situ characterization and modeling of the deformation and fracture of an aluminum foam | Modeling ferroelectric phase transitions for energy harvesting | | | |
| 10:10 | 10:15 | | | | | | | |
| 10:15 | 10:20 | C. A. Bernard, H. Takana, O. Lame, K. Ogawa, J.-Y. Cavallé | G. Diguet, H. Miyauchi, S. Takeda, T. Uchimoto, N. Mary, T. Takagi | T. Wada, S.-H. Joo, H. Kato | S. Zhang, S. Takeda, T. Uchimoto, G. Sebold, B. Ducharme | | | |
| 10:20 | 10:25 | Nozzle design for polymer coating by cold spray process | EMAR monitoring system of a carbon steel thinning in a corrosive environment | Beating Thermal Coarsening in Nanoporous Materials via High-Entropy Design | Magnetization mechanisms NDT | | | |
| 10:25 | 10:30 | | | | | | | |
| 10:30 | 10:35 | Y. Liu, B. Ducharme, K. Makihara, G. Sebold, M. Lallart | M. Lallart, H. Miki, L. Yan, G. Sebold, G. Diguet, M. Ohtsuka, M. Kohl | H. Kurita, T. Kanno, Z. Wang, F. Narita | F. Gillot, P. Mohanasundaram, S. Besset, K. Shimoyama | | | |
| 10:35 | 10:40 | Magnetic characterization of Metglas under tensile stress for energy harvesting applications | Heat engine based on MultiPhysic Memory Alloys and pyroelectric conversion for thermal energy harvesting | Tensile properties and microstructure of cellulose nanofiber reinforced silkworm silk fibers | Shape optimization with respect to mechanical stability criteria | | | |
| 10:40 | 10:45 | | | | | | | |
| 10:45 | 10:50 | G. Sebold, G. Lombardi, L. Maury, J. Jay, A. Komiya, X. Sze Way, G. Coativy, H. Haissounne, L. Lebrun | Vincent Fridrici | Toshiyuki Takagi | Y. Wang, K. Hayashi, Y. Ootani, S. Bai, T. Shimazaki, Y. Higuchi, N. Ozawa, K. Adachi, M.-I. De Barros Bouchet, J. M. Martin, M. Kubo | | | |
| 10:50 | 10:55 | Elastocaloric cooling using natural rubber: material properties, heat transfer and heat losses effects on proof of concept performances | Presentation of LTDs | Introduction of Tohoku Forum for Creativity Activities | Role of OH Termination in Mitigating Friction of Diamond-like Carbon under High Load: A joint Simulation and Experimental Study | | | |
| 10:55 | 11:00 | | | | | | | |

Gathering time