ELyT Workshop 2026

March 7-8, 2026 – Sendai, Japan

Celebrating 10 Years of ELyTMaX & ELyT Global !

General Program and Information

Saturday, March 7

8:30	9:00	Registration
9:00	9:10	Opening
9:10	10:25	Session 1
10:25	10:45	Break
10:45	12:00	Session 2

12:00	14:30	Poster session & Lunch

14:30	16:00	Session 3
16:00	16:20	Break
16:20	17:35	Session 4

18:30	20:00	Banquet

Sunday, March 8

9:00	10:45	Session 5
10:45	11:05	Break
11:05	12:35	Session 6
12:35	12:50	Closing

12:50	14:00	Lunch

14:00		Excursion (Optional)

Information for Poster Presenters:

- Poster size: A0
- Setup: **Morning of Saturday, March 7**, at the Meeting Room, 2nd Floor of IFS Building 1 (https://www.tohoku.ac.jp/map/en/?f=KH_C09)
  * Please bring your poster to the Meeting Room and display it in the provided poster frames.
- The posters will also be exhibited at the anniversary ceremony on Monday, March 9.

Venue

Registration & Oral Sessions

Extended Education & Research Building

6th Floor, Lecture Room A

https://www.tohoku.ac.jp/map/en/?f=KH_C07

*** Coffee Service (Bottles with lids only) ***

Located in the registration area.

Please note that food and drinks are prohibited in the Lecture Room A, unless they are in a bottle with a lid.

Poster Session & Lunch

IFS Building 1

2nd Floor, Meeting Room

https://www.tohoku.ac.jp/map/en/?f=KH_C09

***Banquet** (18:30-20:00 on Saturday)*

PICKS

* 10 min walk from Katahira Campus.

https://maps.app.goo.gl/nxK9zwN7DtN5N1VE8

(Optional) Excursion

Meeting Place and Time:

14:00 at the 1st Floor Entrance Hall, Extended Education & Research Building (Workshop Venue)

Option 1: Kokeshi Doll Painting Experience

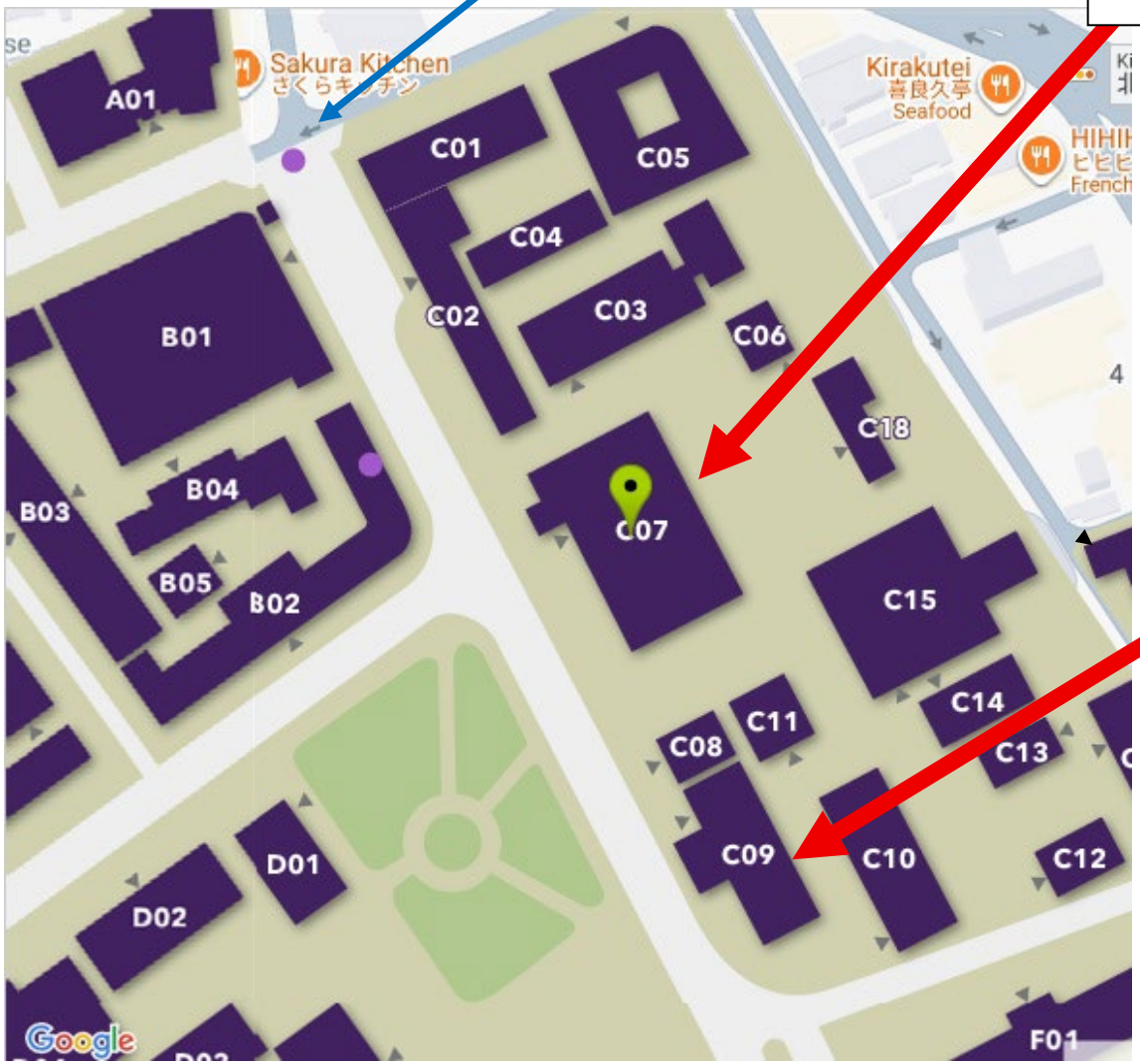
Paint your own original Kokeshi doll, a famous traditional craft of the Tohoku region.

Location: Kokeshi no Shimanuki (10-minute walk (one-way) from Katahira Campus)
Fee: 1,000 JPY (Including materials) *Please pay on-site via cash or credit card.
Website: https://www.sentabi.jp/en/tours/1914

Option 2: Sendai Castle Ruins Walking Tour
Visit the historic site of Lord Date Masamune's fortress and enjoy a panoramic view of the city. * In case of heavy rain or snow, the event will be canceled.
Location: Sendai Castle Ruins (30-minute uphill walk (one-way) from Katahira Campus)
Fee: Free (Optional museum entry: 770 JPY)
Website: https://www.sentabi.jp/spots/60

TOHOKU UNIVERSITY
KATAHIRA CAMPUS MAP

North Gate (KITA-MON)

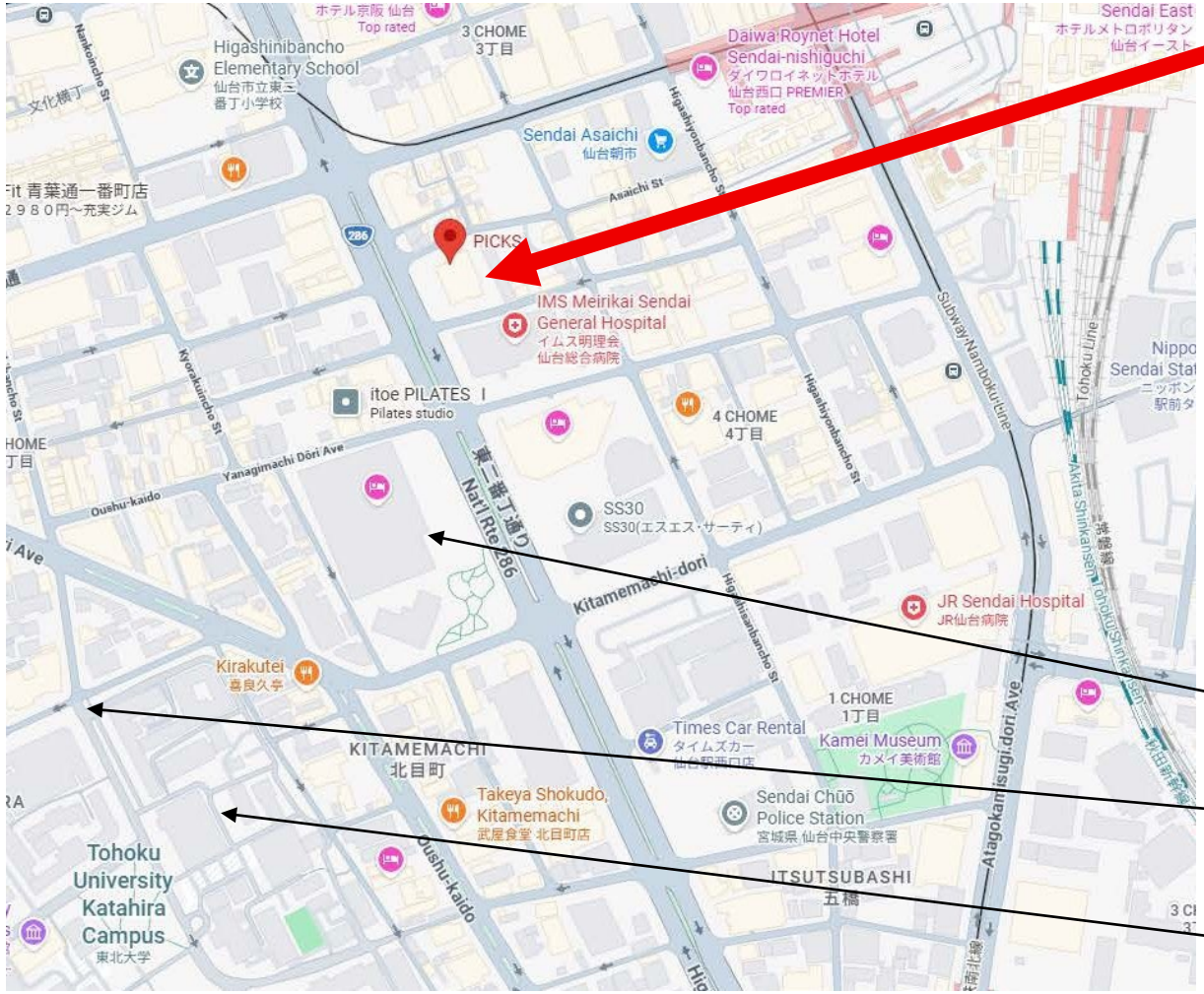


Extended Education & Research Building (C07)
6th floor Lecture Room A
- Registration & Workshop Venue -

IFS Building 1 (C09)
2nd floor Meeting Room
- Poser Session and Lunch Venue -

BBANQUET

18:30-20:00, Saturday, March 7



PICKS

1F, Urbannet Sendai-Chuo Building,
4 Chome-4-19 Central, Aoba Ward,
Sendai, Miyagi 980-0021

Westin Hotel

North Gate (KITA-MON) of Katahira Campus

Workshop Venue

Saturday, March 7th

		9:00	9:10	Opening
Advanced Materials & Structural Integrity	Chairpersons: Prof. Y. Sato and Prof. S. Dancette	9:10	9:25	Role of ions in time evolution of bending of electro-responsive polymers (TEmPuRA) **Manuel Rivera** (INSA Lyon), **Hidemasa Takana** (TU) et al.
		9:25	9:40	Stress assessment from alternative incremental permeability method **Eric Wasniewsk**i (CETIM) et al.
		9:40	9:55	Atomic strain field in high entropy alloys. TEM observations and numerical results **Pierre-Antoine Geslin** (ELyTMaX) et al.
		9:55	10:10	NDT based on the magnetization mechanisms: last progress in the framework of BENTO. **Benjamin Ducharne** (INSA Lyon), **Tetsuya Uchimoto** (TU) et al.
		10:10	10:25	Carbon Fiber Reinforced Polycarbonate Strengthened by HLEBI. **Yoshitake Nishi** (Tokai University) et al.
		10:25	10:45	Coffee break
		10:45	11:00	Self-Sensing and Self-Powered Piezoelectric Structural Identification for Health Monitoring **Yushin Hara** (TU) et al.
Manufacturing Processes & Material Synthesis	Chairpersons: Prof. S. Besset and Prof. T. Uchimoto	11:00	11:15	Al-Fe arc welding: experiment and simulation (MIMECHAS) **Benjamin Leflon**, **Kiyoaki T. Suzuki** (TU) et al.
		11:15	11:30	Elaboration and mechanical behavior of porous NiTi alloys fabricated by liquid metal dealloying **Mikihisa Fukuda** (TU) et al.
		11:30	11:45	Surface engineering of ZnO nanorods **Alexandra Apostoluk** (INSA Lyon) et al.
		11:45	12:00	MOREOVER project: Design of an EIS-based sensor for non-invasive in-field corrosion monitoring **Benoit Ter-Ovanessian** (INSA Lyon), **Zhixin Dong**, **Hiroshi Abe** (TU) et al.
		12:00	14:30	Poster Session with Lunch @ Meeting Room on the 2nd Floor of IFS Building 1

Manufacturing Processes & Material Synthesis	Chairpersons: Prof. S. Besset and Prof. T. Uchimoto	14:30	14:45	Advanced High temperature Processing Platform For The Development Of Novel Materials @ MATEIS Laboratory **Florian Mercier** (INSA Lyon)
		14:45	15:00	Synchronising Microstructure Control and Machinability in L-PBF Titanium Alloys **Chi-Ho Ng** (TU) et al.
		15:00	15:15	Copper Metallization on Oxide Ceramics by Low-Pressure Cold Spray and Its Deposition Mechanism **Kazuhiro Ogawa** (TU) et al.
Computational Mechanics & Data-Driven Modeling	Chairpersons: Prof. E. Gaudry and Prof. T. Tokumasu	15:15	15:30	Robust Multi Objective optimization design approaches Acronym of the ELyT project MuORode **Thanasak Wanglomklang**, **Sébastien Besset** (Centrale Lyon) et al.
		15:30	15:45	Dynamic Monte Carlo Simulations of Turing Pattern **Hiroshi Koibuchi** (Ibaraki KOSEN) et al.
		15:45	16:00	Effect of non-equilibrium state on the C drift velocity in iron with electric field (CarboEDiffSim) **Takashi Tokumasu** (TU) et al.
		16:00	16:20	Coffee break
		16:20	16:35	Exploring Complex Intermetallics and Quasicrystal Approximants as Catalysts **Emilie Gaudry** (Univ. Lorraine) et al.
Fluid Dynamics, Thermal Science & Energy	Chairpersons: Prof. T. Adach and Prof. M. Lallart	16:35	16:50	Heat to power energy conversion using natural rubber (REFRESH) **Gael Sebald** (INSA Lyon), **Atsuki Komiya** (TU) et al.
		16:50	17:05	Thermal aggression of a metallic wall by a reacting flow: near-wall gas-phase temperature measurements with laser diagnostics **Pradip Xavier** (INSA Rouen Normandie) et al.
		17:05	17:20	Contact Electrification of High-speed Nanodroplets Impinging on Various Metal Plates under Different Generation Conditions **Jiun-Shian Lee** (TU) et al.
		17:20	17:35	Presentation of ENSAM research activities **Ivan Iordanoff** (VP for research and innovation at ENSAM) et al.
		18:30	20:00	Banquet @ PICKS

Sunday, March 8th

Fluid Dynamics, Thermal Science & Energy	Chairpersons: Prof. G. Sebald and Prof. A. Komiya	9:00	9:15	Self-powered beacon using optimized magnetic energy harvester and ultralow power design **Hanae Aoki** (TU), **Mickaël Lallart** (INSA Lyon) et al.
		9:15	9:30	DMD analysis of the length-to-diameter ratios for flow passing through a cylinder with its axis parallel to the flow direction **Hiraku Yata** and **Takahiro Adachi** (Akita University) et al.
		9:30	9:45	Towards greener Vacuum Insulation Panel, X-ray tomography measurements to understand fiber network as pressure decrease. (TP-VIP) **Genevieve Foray** (INSA Lyon) et al.
		9:45	10:00	Advanced Computational Study of Liquid Ammonia Atomization and Spray Combustion Characteristics with Phase Change **Jun Ishimoto** (TU)
Bio-Engineering & Medical Hemodynamics	Chairpersons: Prof. C. Pailler-Mattei and Prof. M. Ohta	10:00	10:15	Towards in vivo mechanical characterisation of intracranial aneurysms: a Coherent Point Drift-based approach **Lise Fontalirant** (Centrale Lyon) et al.
		10:15	10:30	Towards Real-Time Whole-Brain Arterial 3D Hemodynamic Prediction — A Physics-Constrained Deep Learning Framework for the Internal Carotid Artery **Jing Liao** (TU) et al.
		10:30	10:45	Cellulose Nanofiber-Reinforced Silk Fabrics via Silkworm Feeding: Tensile Properties and Dimensional Stability **Hiroki Kurita** (TU) et al.
		10:45	11:05	Coffee break
Tribology & Surface Engineering	Chairpersons: Prof. K. Adachi and Prof. V. Fridrici	11:05	11:20	Mechano-Chemically-activated Tribofilm Growth at Nanoscale on DLC materials (MeCaT-DLC) **Jean Michel Martin** (Centrale Lyon), **Shaoli Jiang** (TU) et al.
		11:20	11:35	Achieving 30-fold friction anisotropy in liquids using rubber with inclined-groove texture **Arata Ishizako** (TU) et al.
		11:35	11:50	Anodization of aluminum for self-formation of low friction interfaces under severe tribological conditions: AnodiTribo project **Theo Yamana** (TU, Centrale Lyon) et al.

Tribology & Surface Engineering	Chairpersons: Prof. K. Adachi and Prof. V. Fridrici	11:50	12:05	In-situ Synchrotron Quantification of Internal Strain Distribution in Rubber During Dry Sliding Against a Resin Sphere **Toshiaki Nishi** (TU)
		12:05	12:20	Visco-elastic contact : rolling versus sliding, and the effect of multi-layered material and roughness on the apparent friction coefficient **Daniel Nelias** (INSA Lyon)
		12:20	12:35	Investigation of bulk and interface mechanical properties; correlations for hard on soft contacts **Antoine Normant** (TU), Sylvain Dancette (INSA Lyon) et al.
		12:35	12:50	Closing
		12:50	14:00	Lunch
		14:00		Optional: Excursion

Poster Session: Saturday, March 7, 12:00-14:30

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1	SOLYDIC project: Effect of hydrogen pre-charging on the tribological behavior of lubricated 100Cr6/100Cr6 contacts **Nicolas Mary** (INSA Lyon) et al.
2	HLEBI Induced Fracture Toughness of 3D-Printed Short CFR-PLA **Hirotaka Irie** (Tokai University) et al.
3	Probabilistic Evaluation Method for Cracks on Divertor Armors in Fusion Reactors Using Direct Current Potential Drop Technique **Kazushi Honjo** (TU) et al.
4	Evaluation of Natural Rubber Crystallization Effect on Variation in Elastocaloric Coefficient **Takuma Oiri** (TU) et al.
5	Annealing the Adhesive Film Increases the Local Shear Stiffness of the Formula SAE Carbon Monocoque Without Increasing Weight. **Tsubasa Nakayasu** (Tokai University) et al.
6	A Molecular Dynamics Approach to Computing the Work of Adhesion at Various Surfaces **Takumi Tanaka** (TU) et al.
7	Transition of Momentum Transport Pathways under Shear: A Molecular Dynamics Insights **Masaharu Yoshida** (TU) et al.

8	AI-assisted symmetry-informed topology optimization of woven materials for broadband sound absorption (MuORode) **Thanasak Wanglomklang** (INSA Lyon) et al.
9	Metamodel-based Robust Shape Optimization for Aircraft Cabin Noise Reduction (MuORode) **Thanasak Wanglomklang** (INSA Lyon) et al.
10	Towards Large-Scale Realistic Cerebral Artery Generation (Engineering for Health Simulation & Modeling) **Vedhino Bima Aryaputra Ahnaf** (TU) et al.
11	An Advanced Non-Invasive EIS Method for Corrosion Layer Characterization: From Model Materials to Archaeological Artifacts (MOREOVER) **Benoît Ter-Ovanessian** (INSA Lyon) et al.
12	Strengthening and deformation mechanisms of high strength biodegradable Fe–10Mn alloy **Hiroya Ishii** (TU) et al.