



ELyT workshop 2022

November 16th - 18th, 2022 - Lyon, France

Program

Wednesday, November 16th

INSA - Rotonde / Agora

8:30	9:00	Welcome coffee
9:00	11:10	Doctor Honoris Causa ceremony for Professor Toshiyuki Takagi
		Round table Picture
11:10	11:30	Opening of the workshop

11:30	13:30	Cocktail
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13:30	14:10	Invited talk by Valéry Botton (INSA Lyon)
14:10	15:50	Session 1 (chairs: T. Uchimoto & G. Sébald)
15:50	16:10	Coffee break
16:10	18:30	Session 2 (chairs: M. Ohta & J.-Y. Cavallé)

Thursday, November 17th

Ecole Centrale de Lyon - Building W1 / Amphi 3

7:40		Bus departure from INSA to ECL
9:00	9:40	Invited talk by Anne-Lise Cristol & Yannick Desplanques (Centrale Lille)
9:40	10:20	Session 3 (chairs: K. Funamoto & M. Lallart)
10:20	10:40	Coffee break
10:40	12:00	Session 4 (chairs: K. Funamoto & M. Lallart)

12:00	14:00	Lunch and poster session
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14:00	14:40	Invited talk by Ausrine Bartasyte (Université de Franche-Comté)
14:40	16:00	Session 5 (chairs: H. Abe & N. Mary)
16:00	17:00	Coffee break and poster session
17:00	18:00	Session 6 (chairs: H. Abe & N. Mary)

20:00	23:00	Banquet
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Friday, November 18th

INSA - Building H. Lamarr / Amphi Chappe

9:00	11:00	JSPS Core-to-Core symposium
11:00	12:00	Double-degree PhD Round table

12:00	13:30	Lunch
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13:30	14:10	Invited talk by Kostas Danas (Ecole Polytechnique)
14:10	15:30	Session 7 (chairs: A. Komiya & F. Gillot)
15:30	15:50	Coffee break
15:50	18:10	Session 8 (chairs: H. Kurita & V. Fridrici)
18:10	18:30	Closing session

Wednesday, November 16th

INSA - Rotonde / Agora

8:30	9:00	Welcome coffee
9:00	11:10	Doctor Honoris Causa ceremony for Professor Toshiyuki Takagi Round table Picture
11:10	11:30	Opening of the workshop
11:30	13:30	Cocktail
13:30	14:10	Flows driven by ultrasounds in liquids in a wall mass transfer enhancement perspective Valéry Botton et al. (INSA Lyon)
14:10	14:30	Kinetics of Polyurethane Bending over Long Times under Electric Field (TEmpuRA) Gildas Coativy et al. (INSA Lyon)
14:30	14:50	Thermodynamic modelling of liquid metal dealloying Pierre-Antoine Geslin et al. (INSA Lyon)
14:50	15:10	Fracture behavior of Al-Fe welds Kiyooki Suzuki and Sylvain Dancette (TU and INSA Lyon)
15:10	15:30	Tensile properties of silk fibers obtained from silkworms fed cellulose nanofibers Hiroki Kurita et al. (TU)
15:30	15:50	NDT based on the magnetization mechanisms: last progress in the frame of BENTO Benjamin Ducharne et al. (INSA Lyon)
15:50	16:10	Coffee break
16:10	16:30	Making cool with elastocaloric polymers: progress of the ELyT Global REFRESH project Gaël Sebald et al. (TU)
16:30	16:50	Modelling of elastocaloric polymers-based heat pump: heat transfer analysis & improved design Giulia Lombardi et al. (TU)
16:50	17:10	Analysis of energy conversion potentials of Metglas 2605SA1 for energy harvesting applications by measuring Ericsson cycle Yuanyuan Liu et al. (INSA Lyon)
17:10	17:30	Calibration of an in vivo biomechanical characterisation device for unruptured cerebral aneurysms: first results on polymeric phantom arteries Guillaume Plet et al. (ECL)
17:30	17:50	Design of a polymeric cerebral aneurysm based on numerical modelling for the development of an aneurysm mechanical characterisation device Jolan Raviol et al. (ECL)
17:50	18:10	Observation of endothelial cell response to various stenting deployment in an <i>in vitro</i> flow system Hanif Saifurrahman et al. (TU)
18:10	18:30	Nd ³⁺ -doped 20Al(PO ₃) ₃ -80LiF glass : a promising VUV scintillator material for high-counting-rate fast neutron detection Georges Boulon et al. (Univ. Lyon 1 UCBL)

Thursday, November 17th

Ecole Centrale de Lyon - Building W1 / Amphi 3

7:40		Bus departure from INSA to ECL (in front of La Rotonde)
9:00	9:40	Wear and emissions of highly dissipative rubbing systems: how to learn from experiment? Anne-Lise Cristol, Yannick Desplanques et al. (Centrale Lille)
9:40	10:00	Atomic structure of bulk metallic glasses investigated by transmission electron microscopy, synchrotron-radiation X-ray diffraction, scanning tunneling microscopy and ab-initio molecular dynamics simulation Dimitri Louzguine (TU)
10:00	10:20	Skyrmion stabilization by geometric confinement and uniaxial strain Hiroshi Koibuchi (National Institute of Technology (KOSEN), Ibaraki College)
10:20	10:40	Coffee break
10:40	11:00	Evaluation of the thermal gradient of in-flight polymer particles during cold spray process Chrystelle Bernard et al. (TU)
11:00	11:20	EDOT polymerization in an emulsion by plasma enveloped bubble Kazuhiko Otake et al. (TU)
11:20	11:40	Electrochemical- and gaseous hydrogen monitoring system for thermodynamic equilibrium state using hydrogen-permeable Pd tubes Helmut Takahiro Uchida et al. (Tokai University)
11:40	12:00	Diffusion of water in epoxy ionic liquid composite polymer cured and its effect on dielectric and mechanical properties Lucas Ollivier-Lamarque et al. (TU)
12:00	14:00	Lunch and poster session
14:00	14:40	LiNbO ₃ films for acoustic filters and vibrational energy harvesting Ausrine Bartasyte (Université de Franche-Comté)
14:40	15:00	Flow structure extraction related to the noise generation in a subsonic free jet by using mode decomposition methods Shota Morita et al. (TU)
15:00	15:20	Sensitivity analysis to investigate the secondary structure from atmospheric shear flow Ryoichi Yoshimura et al. (TU)
15:20	15:40	Superlubricity of a-C/Si ₃ N ₄ contact in presence of castor oil Maria-Isabel de Barros Bouchet et al. (ECL)
15:40	16:00	Multi-scale elucidation of friction mechanisms in ice-rubber interfaces Anderson Dalavale Kaiser Pinto et al. (ECL)
16:00	17:00	Coffee break and poster session
17:00	17:20	Introduction of synthetic artery data Kazuyoshi Jin et al. (TU)
17:20	17:40	Blood flow simulations in cerebrovascular models from BraVa database Yutaro Kohata et al. (TU)
17:40	18:00	Robust shape optimization of a disc-brake system under dynamical criterion Frédéric Gillot, Achille Jacquemond et al. (ECL)
20:00	23:00	Banquet On board Hermès II (13 bis quai Rambaud - 69002 Lyon)

Friday, November 18th

INSA - Building H. Lamarr / Amphi Chappe

9:00	11:00	<p>JSPS Core-to-Core symposium</p> <p>1. Introduction of core to core by Pr. Takashi Tokumasu (online)</p> <p>2. Introductions of ammonia utilization and combustion by Pr. Akihiko Hayakawa</p> <p>3. Ammonia : possible free-carbon fuel for energy and transport applications, Invited talk by Pr. Christine Mounaïm-Rousselle</p>
11:00	12:00	Double-degree PhD Round table
12:00	13:30	Lunch
13:30	14:10	<p>Recent advances in the study of magnetorheological elastomers (MREs) Kostas Danas et al. (Ecole Polytechnique)</p>
14:10	14:30	<p>Material design for corrosion and stress corrosion cracking management in nuclear applications Hiroshi Abe (TU) and Benoît Ter-Ovanesian (INSA Lyon)</p>
14:30	14:50	<p>Hypoxia triggers collective aerotactic spreading of eukaryotic cells Nasser Ghazi et al. (Univ. Lyon 1 UCBL)</p>
14:50	15:10	<p>Cancer cell migration under oxygen concentration gradients Kenichi Funamoto et al. (TU)</p>
15:10	15:30	<p>Effect of wall elasticity on flow instability and wall shear stress of a full-scale, patient-specific phantom in middle cerebral artery Ryuhei Yamaguchi et al. (TU)</p>
15:30	15:50	Coffee break
15:50	16:10	<p>Effect of difference wall stiffness between single-segment models and two-segments models on velocity map Daibo Kotaro et al. (TU)</p>
16:10	16:30	<p>Modeling of Olsen cycle for pyroelectric energy harvesting and assessment of abnormal electrocaloric effect in ferroelectric single crystals Gaspard Taxil et al. (INSA Lyon)</p>
16:30	16:50	<p>Thermal processes in thermomagnetic energy generators Joel Joseph et al. (Karlsruhe Institute of Technology)</p>
16:50	17:10	<p>Radiative cooling of solar cells: detailed optoelectro-thermal modeling and influence of surface structuring Mohamed Amara et al. (INSA Lyon)</p>
17:10	17:30	<p>Ferromagnetic alloys for integrated electrical protection circuits Mickaël Lallart et al. (INSA Lyon)</p>
17:30	17:50	<p>Thermodynamic Analysis of a New Electric Environmental Control System Takahiro Adachi (Akita University)</p>
17:50	18:10	<p>CarboEDiffSim :Molecular Theory Analysis of Carbon Diffusion in Iron which is Happened Phase Transformation under Electric Field Patrice Chantrenne et al. (INSA Lyon)</p>
18:10	18:30	<p>Closing session Toshiyuki Takagi (TU)</p>