



# ***ELyT Workshop 2019***

*10th annual workshop*

*Naruko Kanko Hotel, Osaka, Japan*

*March 10th-12th, 2019*

## ***Program***



## *Program of ELyT Workshop 2019*

### *Sunday, March 10th*

- 10:00 Leaving Katahira Campus for Naruko by chartered bus
- 12:00 Lunch

<b>Session 1</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>Project</b>
13:20	Welcome address		
13:40	INVITED 1 : Welding and Joining Researches at Sato Laboratory	Y. S. SATO	
14:10	High-order accurate flow simulation for aeronautical problems	Y. ABE	
14:30	Self-sustained superlubricity of glycerol in a steel/ta-C contact	Y. LONG, M.-I. DE BARROS BOUCHET, J. M. MARTIN	SuperLub
14:50	Liquid metal dealloying: formation and coarsening	P.-A. GESLIN, T. WADA, H. KATO, T. SUGA	DeProMiNa
15:10	FeCr composites: liquid metal dealloying process and its applications	M. MOKHTARI, C. LE BOURLOT, P.-A. GESLIN, E. MAIRE, J. DUCHET-RUMEAU, H. KATO, T. WADA	DeProMiNa



<i>Time</i>	<i>Title</i>	<i>Author(s)</i>	<i>Project</i>
15:30	Optimizing surface finish to Prevent SCC initiation in energy industries	H. ABE, N. MARY, T. MIYAZAKI, Y. WATANABE, B. TER-OVANEISSIAN, B. NORMAND, K. JAFFRE	OPSCC
15:50	Charge kinetic effect and electrostriction in polyurethane	G. DIGUET, K. YUSE, Y. TANAKA, H. MIYAKE, T. TAKAGI, J.-Y. CAVAILLE	TEmpuRA
16:10	Coffee break		

<b>Session 2</b>			
<i>Time</i>	<i>Title</i>	<i>Author(s)</i>	<i>Project</i>
16:30	NeuroRobotics	M. HAYASHIBE	
16:50	Investigation of the effect of surface roughness on human stiffness feeling	S. KANG, T. OKUYAMA, C. THIEULIN, H. ZAHOUANI, C. PAILLER-MATTEI, M. TANAKA	
17:10	Advanced scintillating fibres and Cerenkov fibres for new hadron and jet calorimeters for future colliders	K. LEBBOU, A. YOSHIKAWA, G. BOULON	INTELUM

<i>Time</i>	<i>Title</i>	<i>Author(s)</i>	<i>Project</i>
17:30	Transition of Solid-phase Dynamic Alloying Behavior of Powder Particles under Repetitive Tangential Force	S. TAKEDA, H. MIKI, J. FONTAINE, M. GUIBERT, H. TAKEISHI, T. TAKAGI	COSMIC
17:50	In-flight behavior of polymeric particle during Cold-spray process	C. A. BERNARD, H. TAKANA, G. DIGUET, K. RAVI, O. LAME, K. OGAWA, J.-Y. CAVAILLE	PolymColdSprayCoat
18:10	Potential of double network gel for low friction system	K. KANDA, L. JAY, H. ZAHOUANI, K. ADACHI	TriArtiJoints
18:30	Opportunity of student exchange via ELyTSchool and Strategy of Université de Lyon in Japan	V. FRIDRICI A. FAVE J.-Y. CAVAILLE	
18:50	End of session		

- 19:00 Dinner
- 20:30 Group sessions, Free Discussions

## **Monday, March 11th**

• 7:00 Breakfast

<b>Session 3</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>Project</b>
8:40	New electron microscopy techniques for ceramic materials characterization	L. JOLY-POTTUZ, I. ISSA, A. KRAWCZYNSKA, T. PLOCINSKI, D. STAUFFER, S. LE FLOCH, D. MACHON, V. GARNIER, J. AMODEO, T. EPICIER, K. MASENELLI-VARLOT	
9:00	Quantitative measurement of interfacial heat and mass transfer using high-speed phase-shifting interferometer	Y. KANDA, J. OKAJIMA, A. KOMIYA	
9:20	Tribological characterization of natural bones and bone substitutes for simulating bone drilling in dry conditions	Y. MURAMOTO, V. FRIDRICI, P. KAPSA, G. BOUVARD, M. OHTA	BoneDrill
9:40	Polymer-Metal-Fiber Adhesion Delamination Control (POMADE) by EB-Irradiation	Y. NISHI, H. T. UCHIDA, M. KANDA, M. C. FAUDREE, K. YUSE, D. GUYOMAR, M. SALVIA, J.-Y. CAVAILLE	POMADE & COSMIC

<i>Time</i>	<i>Title</i>	<i>Author(s)</i>	<i>Project</i>
10:00	Magneto Rheological Elastomers and energy harvesting	G. DIGUET, G. SEBALD, M. NAKANO, M. LALLART, J.-Y. CAVAILLE	MARECO
10:20	Coffee break		

<b>Session 4</b>			
<i>Time</i>	<i>Title</i>	<i>Author(s)</i>	<i>Project</i>
10:40	Possibilities of the Gleeble machine at MATEIS laboratory	F. MERCIER	
11:00	Advancement of acoustic emission inspection using system invariant analysis technology	T. SOMA, T. TAKAGI, T. UCHIMOTO, S. CAI	
11:20	Future prospects in the MISTRAL (Miniature-Scale Energy Generation by Magnetic Shape Memory Alloys) project	H. MIKI, M. KOHL, M. LALLART, L. YAN	MISTRAL
11:40	Polymer-Metal-Fiber Adhesions DElamination control	L. OLLIVIER-LAMARQUE, N. MARY, T. UCHIMOTO, S. LIVI, S. YUAN, S. MARCELIN, B. TER-OVANESSIAN, B. NORMAND	POMADE
12:00	Effect of wettability of carbon fiber on interfacial shear stress on PP/PA polymer blend	H. KOSUKEGAWA, F. DALMAS, T. TAKAGI, J.-Y. CAVAILLE	DESIRE
12:20	Lunch		

<b>Session 5</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>Project</b>
14:00	INVITED 2 : Double Keynote Team Science and Interdisciplinary Research in Lyon Collaborative Decision Making in a Visualized, Data Driven Environment	K. LUND J. MILLER	
14:50	Study on composite materials in NARITA laboratory	F. NARITA, H. KURITA	
15:10	Piping system, risk management based on wall thinning monitoring and prediction	T. TAKAGI, P. GUY	PYRAMID
15:30	Recent advances in PYRAMID project : EMAT experimental results for corrosion characterization	P. GUY, B. NORMAND, H. NAKAMOTO, T. TAKAGI, D. MALLICK	PYRAMID
15:50	Advanced simulation tools for nondestructive assessment of corrosion affecting steel pipes	P. CALMON, C. REBOUD, E. DEMALDENT	PYRAMID
16:10	Coffee break		



<b>Session 6</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>Project</b>
16:30	Molecular Simulation Analysis for Adhesion Mechanisms Involved in Polyethylene Processed by Cold Spray	Y. ISHIZAWA, R. MIURA	
16:50	Transonic buffet phenomenon by optimized extraction of transient structure based on physical sensitivity	A. YAKENO	
17:10	A new device based on a unique 6-axis force sensor for environment-controlled tribological and mechanical experiments	J. FONTAINE, M. GUIBERT, J. GALIPAUD, T. LE MOGNE, T. DURAND	
17:30	Modelisation and simulation of nanoscale phenomena	T. TOKUMASU, P. CHANTRENNE	CarboEDiffSim & SilicaGelSim
17:50	Robust Shape optimization under mechanical stability criteria	K. SHIMOYAMA, P. MOHANASUNDARAM, S. BESSET, F. GILLOT	MuORode
18:10	The Eddy Current Magnetic Signature (EC-MS) non-destructive micro-magnetic technique - Simulation	T. MATSUMOTO, B. DUCHARNE, T. UCHIMOTO, B. GUPTA, T. TAKAGI, G. SEBALD	BENTO
18:30	End of session		

- 19:00 Dinner
- 20:30 Group sessions, Free Discussions



## Tuesday, March 12th

• 7:00 Breakfast

Session 7			
Time	Title	Author(s)	Project
8:30	Computational fluid dynamics for perfusion MRI simulation	M. DECROOCQ, M. OHTA, C. FRINDEL, G. LAVOUE	
8:50	On the potential of materials with a high elastic limit and moderate plasticity for dental implants	A. LIENS, B. TER OVANESSIAN, H. KATO, D. FABREGUE, H. REVERON, N. COURTOIS, J. CHEVALIER	
9:10	Understanding Creep Phenomenon in High Chromium Steel Samples: Characterisation and Modelling	B. GUPTA, B. DUCHARNE, T. UCHIMOTO, G. SEBALD, T. TAKAGI	BENTO
9:30	Low and ultralow friction of microcrystalline diamonds films towards smart and tribo-resistant coatings	H. MIKI, M. BELIN	IofDIAMS
9:50	Coffee break		

<b>Session 8</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>Project</b>
10:10	Innovative Surface Treatments by Peening	D. NELIAS, T. CHAISE	
10:30	Elaboration and characterization of new Titanium alloys for biomedical applications	M. LAURENÇON, D. FABREGUE, A. CHIBA	
10:50	Development of fluoropolymer coating using Cold-spray	W. A. LOCK SULEN, K. RAVI, C. A. BERNARD, N. MARY, Y. ICHIKAWA, K. OGAWA	PolymColdSprayCoat
11:10	Influence of the C composition on properties of Co based alloys	S. AOTA, A. CHIBA, E. MAIRE, D. FABREGUE, K. YAMANAKA	DECCOBABA
11:30	Concluding remarks		

- 12:00 Lunch
- 13:30 Leaving hotel for sake brewery by chartered bus
- 17:00 Arriving at Sendai station

