

Visual-JW 2016



17-18 October, 2016

Hotel Hankyu Expo Park, Osaka, Japan

The International Symposium
on Visualization in Joining & Welding Science through
Advanced Measurements and Simulation,

in conjunction with

Symposium on the Research Activities of
Joint Usage / Research Center on Joining and Welding

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The 1st International Symposium
on Creation of Life Innovation Materials
for Interdisciplinary and International Researcher Development
(iLIM-1)

FINAL PROGRAM

Organized by Joining and Welding Research Institute, Osaka University
Co-organized by Japan Welding Society

In the year 2016, 4th International Symposium on Visualization in Joining & Welding Science through Advanced Measurements and Simulation (Visual-JW 2016) in conjunction with Symposium on the Research Activities of Joint Usage / Research Center on Joining and Welding and the 1st International Symposium on Creation of Life Innovation Materials for Interdisciplinary and International Researcher Development (iLIM-1) will be held on 17-18, October at the Hotel Hankyu Expo Park in Osaka, Japan.

The symposium aims to promote direct exchange of the latest scientific and technological information related to visualization of complex phenomena in material processing through advanced measurements and simulation. It will also provide a good opportunity to discuss on the future and the strategy regarding R&D of materials processing.

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Satoshi YAMANE, Saitama University, Japan
Wenxing ZHOU, Western University, Canada

Schedule of the Symposium

Registration

17-October: 9:00 -18:00
 18-October: 8:30 -15:00

17-October

Monday 17-October					
Room	Orbit Hall				
9:50-10:00	Opening Ceremony				
10:00-10:30	Plenary Lecture 1				
10:30-11:00	Plenary Lecture 2				
11:00-11:30	Plenary Lecture 3				
11:30-13:00	Lunch at Izumi				
Room	Room A	Room	Room B	Room	
Session Name	Visualization of Advanced Material Processing (1)	Session Name	Visualization of Joining and Welding Process (1)	Room C	Creation of Life Innovation Materials for Interdisciplinary and International Researcher Development (iLIM) Invited Lecture
13:00-13:20	AMP-1	13:00-13:20	JWP-1	13:00-13:20	iLIM-O-1
13:20-13:40	AMP-2	13:20-13:35	JWP-2	13:20-13:40	iLIM-O-2
13:40-14:00	AMP-3	13:35-13:50	JWP-3	13:40-14:00	iLIM-O-3
14:00-14:20	AMP-4	13:50-14:05	JWP-4	14:00-14:20	iLIM-O-4
		14:05-14:20	JWP-5	14:20-14:40	iLIM-O-5
14:20-14:35	Coffee Break			14:40-15:00	iLIM-O-6
Session Name	Visualization of Advanced Material Processing (2)		Visualization of Joining and Welding Process (2)	Coffee Break	
14:35-14:55	AMP-5	14:35-14:55	JWP-6	Room C	Invited Lecture (iLIM) by Young Researchers
14:55-15:10	AMP-6	14:55-15:10	JWP-7		
15:10-15:25	AMP-7	15:10-15:25	JWP-8		
15:25-15:40	AMP-8	15:25-15:40	JWP-9		
15:40-15:55	AMP-9	15:40-15:55	JWP-10		
15:55-16:10	Coffee Break			15:15-15:30	iLIM-O-7
				15:30-15:45	iLIM-O-8
Session Name	Visualization of Advanced Material Processing (3)	Session Name	Visualization of Joining and Welding Process (3)	15:45-16:00	iLIM-O-9
				16:00-16:15	iLIM-O-10
				16:15-16:30	iLIM-O-11
				16:30-16:45	iLIM-O-12
16:10-16:30	AMP-10	16:10-16:30	JWP-11	Coffee Break	
16:30-16:45	AMP-11	16:30-16:45	JWP-12		
16:45-17:00	AMP-12	16:45-17:00	JWP-13		
17:00-17:10	Break				
Session Name	Visualization of Advanced Material Processing (4)	Session Name	Visualization of Joining and Welding Process (4)	Room D	Creation of Life Innovation Materials for Interdisciplinary and International Researcher Development (iLIM) Poster
17:10-17:30	AMP-13	17:10-17:30	JWP-14	16:45-18:15	iLIM-PT-1 ~ iLIM-PT-71
17:30-17:45	AMP-14	17:30-17:45	JWP-15		
17:45-18:00	AMP-15	17:45-18:00	JWP-16		
18:00-18:15	AMP-16	18:00-18:15	JWP-17		
18:15-18:30	Break				
18:30-20:30	Banquet at Orbit Hall				

* Exhibition by Companies at Room D between 13:00 and 17:00

18-October

Tuesday 18-October				
Room	Room A	Room	Room B	Room D
Session Name	Visualization of quality, safety and reliability (1)	Session Name	Visualization of Joining and Welding Process (5)	
9:00-9:20	QSR-1	9:00-9:20	JWP-18	X
9:20-9:35	QSR-2	9:20-9:35	JWP-19	
9:35-9:50	QSR-3	9:35-9:50	JWP-20	
9:50-10:00	Coffee Break			
Session Name	The Research Activities of Joint Usage / Research Center on Joining and Welding (1)	Session Name	Visualization of Mechanics in Joining and Welding (1)	
10:00-10:20	RAJU-1	10:00-10:20	MCJW-1	X
10:20-10:40	RAJU-2	10:20-10:35	MCJW-2	
10:40-11:00	RAJU-3	10:35-10:50	MCJW-3	
11:00-11:20	RAJU-4	10:50-11:05	MCJW-4	
-	-	11:05-11:20	MCJW-5	
11:20-11:35	Break			
Session Name	The Research Activities of Joint Usage / Research Center on Joining and Welding (2)	Session Name	Visualization of Mechanics in Joining and Welding (2)	
11:35-11:55	RAJU-5	11:35-11:55	MCJW-6	X
11:55-12:15	RAJU-6	11:55-12:10	MCJW-7	
12:15-12:35	RAJU-7	12:10-12:25	MCJW-8	
12:25-13:40	Lunch at Room C			
13:40-14:40	X			Poster (Visual-JW2016) PT-1 ~ PT-68 Coffee Break
Session Name	Visualization of Metallurgy in Joining and Welding (1)	Session Name	Visualization of Joining and Welding Process (6)	
14:40-15:00	MTJW-1	14:40-15:00	JWP-21	X
15:00-15:15	MTJW-2	15:00-15:15	JWP-22	
15:15-15:30	MTJW-3	15:15-15:30	JWP-23	
15:30-15:45	MTJW-4	15:30-15:45	JWP-24	
15:45-16:00	MTJW-5	15:45-16:00	JWP-25	
16:00-16:15	Break			
Session Name	Visualization of Joining and Welding Process (7)	Session Name	Visualization of Joining and Welding Process (8)	
16:15-16:35	JWP-26	16:15-16:35	JWP-29	X
16:35-16:50	JWP-27	16:35-16:50	JWP-30	
16:50-17:05	JWP-28	16:50-17:05	JWP-31	

* Exhibition by Companies at Room D between 9:00 and 15:00

Tuesday 18-October

The Research Activities of Joint Usage / Research Center on Joining and Welding

Room A

10:00-11:20: The Research Activities of Joint Usage / Research Center on Joining and Welding (Joining / Welding Processing) (1) (RAJU-JW)

Chair Person: Hisashi SERIZAWA (Osaka University)
Seiichiro TSUTSUMI (Osaka University)

- RAJU-1 **Invited Lecture:** “Characteristic of Charpy Absorbed Energy for Steel Bridge Member with Fire Damage”
Mikihito HIROHATA (Nagoya University), Yasuhito TAKASHIMA, Fumiyoshi MINAMI (Osaka University)
- RAJU-2 **Invited Lecture:** “Influence of Shot Peening and Thermal Aging Treatment on Resistance to Intergranular Corrosion in Shielded Metal Arc Weld Metal for Type 600 Nickel Base Alloy”
Satoru NISHIKAWA, Koichi OOI (JAPEIC), Makoto TAKAHASHI (Osaka University)
- RAJU-3 **Invited Lecture:** “Analytical Simulation of Residual Stress Introduced by Hammer Peening”
Risa MATSUMOTO (Kyoto University), Toshiyuki ISHIKAWA (Kansai University), Seiichiro TSUTSUMI (Osaka University), Hiroataka KAWANO (Kyoto University), Kentaro YAMADA (Central Nippon Highway engineering Nagoya, Co. Ltd)
- RAJU-4 **Invited Lecture:** “Effect of Loading on Stress Distribution in Welded Joint with Low-transformation-temperature Welding Wire”
Yoshiki MIKAMI, Kazushi TANIGAWA, Hisashi SERIZAWA, Masahito MOCHIZUHKI (Osaka University)

11:35-12:35: The Research Activities of Joint Usage / Research Center on Joining and Welding (Joining / Welding Processing) (2) (RAJU-JW)

Chair Person: Katsuyoshi KONDOH (Osaka University)
Hiroshi NISHIKAWA (Osaka University)

- RAJU-5 **Invited Lecture:** “Size- and Shape-controlled Colloidal Fluid of Surface-modified Iron Oxide Magnetic Fine Particles: The Magnetorheological Property”
Kiyoshi KANIE, Yasufumi ODA, Jun YABUKI, (Tohoku University), Shinya YAMANAKA (Muroran Institute of Technology), Masaki MATSUBARA (Tohoku University), Hiroya ABE, Makio NAITO (Osaka University), Atsushi MURAMATSU (Tohoku University)
- RAJU-6 **Invited Lecture:** “Modification of Vacuum Plasma Sprayed Tungsten Coating by Friction Stir Processing”
Hiroyasu TANIGAWA, Kazumi Ozawa (NIQRST), Yoshiaki MORISADA, Hidetoshi FUJII (Osaka University)
- RAJU-7 **Invited Lecture:** “Biomedical Assessment of Titanium coated with Carbon Nanotubes”
Hirofumi MIYAJI, Erika NISHIDA (Hokkaido University), Junko UMEDA, Katsuyoshi KONDOH (Osaka University), Hiroko TAKITA, Tadashi IIZUKA, Tsukasa AKASAKA, Saori TANAKA, Akihito KATO (Hokkaido University), Bunshi FUGETSU (The University of Tokyo), Tsutomu SUGAYA (Hokkaido University)
- RAJU-8* **Invited Lecture:** “Mechanical Properties of Selective Laser-melted Co-Cr-Mo-N Alloys for Biomedical Applications”
Naoyuki NOMURA, Keiko KIKUCHI, Akira KAWASAKI (Tohoku University)

* Presented in “**Visualization of Advanced Material Processing (1) (AMP)** on Monday 17-October.
