First Announcement of JCJW2018
Organized by JWRI, Osaka University
Co-organized by MLPM, Shanghai Jiao Tong University

Japan-China Joining and Welding Workshop 2018 (JCJW2018)
– Advanced joining science and integrity assessment of weld components –

August 6th, 2018
Arata Hall, JWRI, Osaka, JAPAN

Substantial development is found in the collaboration between Osaka University and Chinese Academy, since JWRI (Joining and Welding Research Institute) exchanged the communication with China in the field of joining and welding in 1979. Along with the establishment of Osaka University East-Asian Center for Academic Initiatives in 2014 in Shanghai, JWRI set up the Cooperation Center in 2017 with the key-lab of Material Laser Processing and Modification (MLPM) at Shanghai Jiao Tong University as a hub office of JWRI in China. As part of the research network promotion, JWRI hosts the Japan-China Joining and Welding Workshop (JCJW2018) on August 6th, 2018 at JWRI, Osaka University. JCJW2018 deals with the advanced joining science and technologies, including additive manufacturing, friction stirring welding and laser processing, and the integrity assessment of weld components. JWRI invites 15 professors from Japan and China to present their new research achievements in welding/joining related fields, and JWRI warmly welcomes researchers, engineers and students to participate JCJW2018.

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Program

9:25-9:40	Opening address, F. Minami (JWRI, Osaka University)
Keynote presentations	
9:40-10:00	Z.G. Li (MLPM, Shanghai Jiao Tong University) Hot crack formation and control methods during laser additive manufacturing of Inconel 718 alloy
10:00-10:20	H. Fujii (JWRI, Osaka University) Visualization of material flow during FSW
Session 1: Friction stirring welding	
10:20-10:40	*K. Chen (Shanghai Jiao Tong University) Improving porous TC4/UHMWPE friction spot welding joint through control of welding force and temperature
10:40-11:00	*H.H. Liu (Osaka University) Elucidation of interface joining mechanism of friction stir welding through Cu/Cu10Zn interface observation
Session 2: Laser processing	
11:00-11:20	*L.Q. Li (Harbin Institute of Technology) Laser processing technology in state key lab of advanced welding and joining
11:20-11:40	*Y. Kawahito (Osaka University) Clarification of high power laser welding phenomena
11:40-12:00	*F. G. Lu (Osaka University, Shanghai Jiao Tong University) Insight on the stability of welding process under different laser paths
Lunch (12:00-13:00)	
Session 3: Additive manufacturing	
13:00-13:20	*M. Tsukamoto (Osaka University) Development of laser metal deposition technology with high intensity blue diode lasers
13:20-13:40	*B.H. Chang (Tsinghua University) Influences of beam profiles and cooling conditions in laser metal deposition of a directionally-solidified superalloy
13:40-14:00	*Y. Koizumi (Osaka University) Microstructures control of alloys additively manufactured by electron beam melting (EBM)
14:00-14:20	*Z.Y. Wei (Xi'an Jiaotong University) Metal additive manufacturing: heat and mass transfer, microstructure evolution
14:20-14:40	*K. Kondoh (Osaka University) Nitrogen solid-solute titanium materials fabricated by selective laser melting (SLM)
14:40-15:00	*S.B. Lin (Harbin Institute of technology) Recent advances in wire arc additive manufacturing at HIT.
Coffee break (15:00-15:20)	
Session 4: Materials joining assessment	
15:20-15:40	*L.Y. Xu (Tianjin University) Two-parameter approach of creep crack initiation time considering the constraint effect
15:40-16:00	*D.A. Deng (Chongqing University) Investigation on residual stress and distortion of the components performed by laser cladding and wire-arc additive manufacturing by means of numerical simulation
16:00-16:20	*N. Ma (Osaka University) Residual stress and strength of brazed joint of ceramics and laser deposited functionally graded materials
16:20-16:30	Closing address, M. Tanaka (JWRI, Osaka University)
16:40-17:40	JWRI lab tour (AM, Laser, FSW)
18:00-20:00	Get together party

* invited presenters