



## The Fifth Symposium on Linear Friction Welding Day 1: Wednesday 20<sup>th</sup> March

08.30	Registration and refreshments	
09.00	Welcome	
<b>Equipment Developments and Innovations</b>		
09.10	LFW Process Control And Machine Technology	<i>Laurent Calvert Design Engineer, ACB</i>
09.35	MTI Friction Welding Research & Development	<i>Jeff Fletcher Chief Scientist &amp; VP of Innovation MTI</i>
10.00	Bringing LFW to Mainstream Manufacturing	<i>Frank Deley Product Manager, Taylor Winfield</i>
10.25	Refreshments	
<b>Industrial Applications</b>		
10.45	LFW of Additive Manufactured Parts	<i>Rhodri Lewis Materials Scientist, Renishaw</i>
11.05	LFW Blisks at Rolls-Royce	<i>Chris Pretty Manufacturing Engineer, Rolls-Royce</i>
11.30	LFW Process Development and Applications in Aerospace Industry	<i>Yasmine Sadallah Materials and Process Engineer, ACB</i>
11.55	In-Process Quality Control: Manufacturing Excellence through Data Analytics	<i>Dan Hartman Owner, Manufacturing Behavioral Science</i>
12.20	Lunch	
<b>Research Works</b>		
13.20	On the Fatigue Crack Growth Characteristics of LFW Butt Welds	<i>Sabrina Ahsan Research Scientist, University of Tokyo</i>
13.45	Low Temperature LFW of Ti-6Al-4V Alloy	<i>Yasuhiro Aoki Research Scientist, JWRI/Osaka University</i>
14.10	LFW of Ti-6Al-4V Alloy and SUS316L Stainless Steel	<i>Takuya Inagaki, Research Scientist, JWRI/Osaka University</i>
14.35	Refreshments	
<b>Industrial Developments</b>		
14.45	LFW of Low-Carbon Martensitic Stainless Steel: Effect on Energy Input and Thermal Profile	<i>Jonathan Mast GE Aviation</i>
15.10	Joining of cemented tungsten carbide to a medium carbon 42CrMo4 steel by LFW	<i>Amanda McKie, Senior Research Scientist, Element 6</i>
15.35	Linear Friction Welding of Continuous Fibre Reinforced Thermoplastic Composites	<i>Chris Worrall, Principal Project Leader, TWI Ltd</i>
<b>Floor Discussion</b>		
16:00	Present and Future of Linear Friction Welding	
16.30	Close of day 1	
19.00	Dinner at Imperial War Museum Duxford	



## Day 2: Thursday 21<sup>st</sup> March

08.30	Refreshments	
<b>Research Works</b>		
09.00	Effect of post weld heat treatment on Linear Friction Welded AD730	<i>Sandrine Bozzi Aubert et Duval</i>
09.25	LFW of AD730™ Ni-Base Superalloy: Process-Microstructure-Property Interactions	<i>Mohammad Jahazi Professor, ETS</i>
09.50	LFW Process Between Single Crystal Superalloy and Powder Superalloy	<i>Yajuan Ji Senior Engineer, AVIC MTI</i>
10.15	Microstructure & Mechanical Property of LFW joint of Laser Melting Deposited TC17 Ti Alloy	<i>Junlong Jin Engineer, AVIC MTI</i>
10:40	Refreshments	
<b>Industrial Developments</b>		
10.55	Friction Welding of Ti-6Al-4V Alloy and Metal Matrix Composites on its Base	<i>Sergey Prikhodko Associate Adjunct Professor, UCLA</i>
11.20	Ceramic-Metal Bonding: Direct LFW of Alumina to Aluminium, and Alumina to Rolled Homogenised Armour	<i>John Spray President, HIT Dynamics</i>
11.45	Process Robustness Assessments LFW of Titanium Alloy using a Mechanical Drive System	<i>Jerry Gould Technology Fellow, EWI</i>
12.10	Developing LFW for Satellite and Space Launch Vehicle Applications	<i>Joao Gandra Principal Project Leader, TWI Ltd, for ESA</i>
12.35	Lunch	
<b>Research Works</b>		
13.30	Fracture mechanisms of similar Ti6242 LFW under monotonic and cyclic loading	<i>Juan-Manuel Garcia Research Scientist, Mines-ParisTech</i>
13.55	On Dynamically Modifying the LFW Process – Academic Simulation	<i>Achilles Vairis Professor, University of Crete</i>
14.20	Finite Element Modelling of LFW processes	<i>James Farrar Business Unit Manager, Deform</i>
14.45	Refreshments and optional Tour of Friction laboratories & LFW, FSSW and FSW demo	
15.30	Close of event	