

## Programme: Advanced Manufacturing Workshop 2025

Tuesday 3rd June: INTERNAL AND RESIDUAL STRESSES, HARMONIZATION			
Time	Speaker	Affiliation	Title
08:30	<b>Andreas Meyer</b>	<b>ILL</b>	Institutional welcome and opening of the workshop
08:45	<b>Ennio Capria</b>	<b>ESRF</b>	The NFFA infrastructure for nanotechnology: vision and opportunities
09:00	<b>Keynote: John Almer</b>	<b>APS</b>	<b>Multi-scale Material Characterization with High-Energy X-rays</b>
09:45	Levente Balogh	University of Queens	Quantifying complex defect structures created by advanced manufacturing using X-ray diffraction
10:15	COFFEE BREAK		
10:45	Christopher Fancher	ORNL	Strains in Wire Arc Additive Manufacturing; Insights from operando neutron scattering
11:15	Sandra Cabeza	ILL	Operando characterization in Advanced Manufacturing by Neutron Diffraction at ILL
11:45	LUNCH BREAK - Cantine		
13:30	<b>Keynote: Jens Gibmeier</b>	<b>KIT</b>	<b>On handling with crystallographic textures for residual stress analysis using diffraction methods</b>
14:15	Supriyo Ganguly	University of Cranflied	Application of neutron strain measurement in wire plus arc additive structure for better manufacturability and structural integrity
14:45	Alexander Evans	BAM	Diffraction based residual stress analysis: challenges and opportunities for additively manufactured alloys
15:15	Simon Hunt	University of Manchester	New algorithms for stress and grain-size from spotty, noisy or incomplete x-ray diffraction data
15:45	COFFEE BREAK		
16:15	Carsten Ohms	NET	Neutron diffraction stress measurement for engineering – About the international standard ISO 21432 and the example of the NeT European Network
16:45	Joe kelleher	ISIS	Time of flight neutron diffraction as probe of texture and grain size effects in structural integrity of AM materials
17:15	Anna Ziara-Paradowska	ANSTO	What neutrons can do in-situ and ex-situ for large scale additive manufacturing?
17:45	Andrea Cuffinni	ESRF, NOVITOM	Synchrotron and neutron stress characterization for industry: an EU effort towards harmonization of SOPs and data workflows
18:30	<b>CHEESE AND WINE - in campus</b>		

Wedn. 4th June : 2D and 3D IMAGING, ROUND TABLES			
Time	Speaker	Affiliation	Title
08:30	<b>Keynote: Henning F. Poulsen</b>	<b>DTU</b>	<b>Dark field x-ray microscopy for advanced manufacturing</b>
09:15	Nick Calta	LLNL	X-ray imaging to understand subsurface behavior during laser drilling
09:45	Alexander Rack, Yunhui Chen	ESRF	Insights into laser advanced manufacturing with synchrotron imaging
10:15	COFFEE BREAK		
10:45	Alessandro Tengattini	ILL	Neutron imaging at ILL and its potential for Additive Manufacturing
11:15	Sergio Soria	PSI, insitu AM imaging	Bragg edge imaging and polarisation contrast neutron imaging
11:45	LUNCH BREAK - Cantine		
13:30	<b>Keynote: Peter Lee</b>	<b>UCL</b>	<b>Multi-modal Correlative Imaging of Laser Additive Manufacturing Processes</b>
14:15	Pierre L'Hussier	SIMAP	Defects in additive manufacturing materials and structures : from LPBF process 3D imaging towards mechanical behaviour
14:45	Mark Easton	RMTI	Challenges in metal additive manufacturing that synchrotron experiments can enlighten.
15:15	Federico Sekt	IMDEA	X-ray imaging and analysis for the characterization of metal AM
15:45	COFFEE BREAK		
16:15	Round Table - Fabrication & Modelling		
16:45	Round Table - in-situ / operando		
17:15	Round Table Harmonization		
19:30	<b>DINER DOWNTOWN- Le 26</b>		

Thursday 5th June: MICROSTRUCTURE, INDUSTRY			
Time	Speaker	Affiliation	Title
08:30	<b>Thomas Niendorf</b>	<b>University of Kassel</b>	<b>From alloy design and process parameters to part properties – The role of advanced characterization techniques in AM</b>
09:15	Steven van Petegem	PSI	In-situ multimaterial printing: diffraction and imaging characterization
09:45	Samantha Lawrence	LANL	Probing hydrogen-modified phase transformations and deformation behavior with in-situ diffraction techniques
10:15	COFFEE BREAK		
10:45	Eitan Tiferet	NRCN	Developing printing parameters in PB EBM, modeling, simulation and powder metallurgy approach
11:15	Helmut Klöcker	EMSE	Cold Spray deposits: mechanical and microstructural characterizations
11:45	LUNCH BREAK - Cantine		
13:30	<b>Keynote: Ibo Matthews</b>	<b>LLNL</b>	<b>Designing new metal alloys for applications in extreme conditions</b>
14:15	Elena Lopez	Fraunhofer IWS	Advanced materials and system technology developments for Additive Manufacturing
14:45	Christian Leinenbach	EMPA	Tracking Defects and Phase Evolution in Laser Metal Additive Manufacturing: Insights from In Situ/Operando Experiments at Synchrotron and Neutron Beamlines
15:15	Sunchi Chen	UKAEA	materials and manufacturing challenges in Fusion
15:45	Yaron Ganor	NRCN	Printing recipes for 17-4 SS in PB EBM, opportunities and challenges
16:15	Sandra Cabeza, Ennio Capria	ILL & ESRF	<b>WRAP UP &amp; CLOSURE OF THE WORKSHOP</b>
17:30	<b>CULTURAL VISIT: La Bastille</b>		