

# Poster Sessions

Day	Session Category	Poster ID	Poster Title	Author(s)
Monday 8th June	Additive Manufacturing and Welding	A1	A Model Experiment of Magneto-hydrodynamics in an Additive Manufacturing Melt Pool	Valdemars Felcis, University of Greenwich
		A2	GPU-parallel AMR multi-phase-field simulation of competitive growth of dendritic grains in a melt pool during metal additive manufacturing	Tomoya Okada, Kyoto Institute of Technology
		A3	Highly efficient multi-phase-field framework for microstructure optimization via scan strategies in metal AM	Yuki Takahashi, Kyoto Institute of Technology
		A4	In Situ Synchrotron X-ray Investigation of Solidification Dynamics During Directed Energy Deposition of 316L Stainless Steel	Xinyi Hao, University College London
		A5	Multiphase fluid mechanics and crystals plasticity approach to predicting surface roughness and localised deformations	Hugh J. Banes, University of Sheffield
		A6	Parallel GPU-AMR accelerated phase-field lattice Boltzmann simulations for melt pool dynamics in metal additive manufacturing	Konosuke Ikeda, Kyoto Institute of Technology
		A7	Revealing the Nature of Melt Pool Flow in Additive Manufacturing using Tungsten Tracer Particles in a Transient External Magnetic Field	Ivars Krastins, University of Greenwich
		A8	Coupling ultrasound and adjustable ring mode beam shaping during laser welding of AA6063 extrusions alloy.	Philip Carr, Carrs Welding
	Casting and Other Process Models	A9	A Study of Uncertainty in Metal Casting Using a 1D Custom Python Finite Element Analysis Solver	Christopher A Jones, AWE
		A10	Direct modelling of mechanical deformation of mushy zone for Aluminium DC-casting simulation	Sylvain Gouttebroze, SINTEF
		A11	Modeling and simulation of liquid in-fill process for sustainable manufacturing	Mark Jolly, University of Greenwich
		A12	Optimisation of horizontal break ring continuous casting process using CFD Simulations.	Badarudeen Kalappurakkal Mohiyudeen,
		A13	SHELL-CRACK: From Microstructure to Caster-Scale — Predicting and Preventing Cracks in Continuous Steel Casting	Nils Å.I. Andersson, Swerim
		A14	Multifrequency Ultrasonic Treatment for Molten Metal Processing of Aluminum Alloys- Mechanisms and Inputs for Modeling	Raquel F Jaime, University of California, Irvine
	Multiphysics Modelling	A15	Dendritic Fracture Mechanics: A Comparative Modelling Study	Mathursan Vinayakamoorthy, University of
		A16	EIGA and cold crucible combined melting technique	Koulis A. Pericleous, University of Greenwich
		A17	Improving Benchmark Validation with Uncertainty Quantification	Levi Dickson, Purdue University
		A18	Molecular dynamics study of deformation induced fragmentation in a semi-solid state	Akihiro Niwa, Kyoto Institute of Technology
		A19	Numerical Simulation of Acoustic Bubble Dynamics: Analysis of Rayleigh-Plesset Solvers	Nurul Islam, University of Greenwich
		A20	Phase-field multi-physics simulation of granular fragmentation due to contacts among solids	Gensei Kobayashi, Kyoto Institute of Technology
Tuesday 9th June	Defects and Fluid Flow	B1	CFD modeling of calcium chloride solidification	Shizhan Zhang, Montanuniversität Leoben
		B2	Simulation of macrosegregation and macrostructure in continuous casting of high-carbon steel billets	Miha Založnik, Université de Lorraine, CNRS, IJL
	Numerical Methods	B3	Macroscopic columnar front tracking with a phase-field interface capturing method	Miha Založnik, Université de Lorraine, CNRS, IJL
		B4	A Lattice Boltzmann Approach to the One-Fluid Formulation of Multiphase Flow	Snehil Srivastava, University of Greenwich
		B5	Flow-driven particle deposition and clog network formation on refractory walls	Hadi Barati, K1-MET, Austria
		B6	The calculation of kinetic interface contact condition phase diagram for the melting of multi-component aluminium alloys	Qiang Du, SINTEF Industry
	Insitu Experiments	B7	Heat transfer and solidification model of thermographic differential thermal analysis for the study of steel solidification	Jose M. Flores Herrera, McMaster University
		B8	Investigating hot-tear nucleation, growth and merging behaviour during aluminium alloys solidification using high-speed synchrotron X-ray imaging	Akash Aggarwal, University of Oxford
		B9	Heuristic Operando X-ray Microscopy: An Entropy-Based Sampling Framework for Large-Scale Facilities	James Le Houx, University of Greenwich
		B10	Toward accurate reconstruction of dendritic morphology and material property identification from X-ray imaging data using phase-field-based data assimilation system	Ayano Yamamura, Kyoto Institute of Technology
		B11	In Situ Synchrotron Imaging of Ga-In Alloy Solidification Under Pulsed Electromagnetic	Natalia Shevchenko, Helmholtz-Zentrum Dresden-
	Microstructure and Macrostructure Formation	B12	Effect of Alloying Elements on the Microstructure and Mechanical Behaviour in Recycled Al-Si Alloys	Anish G P Nand, Cranfield University
		B13	Formation of bicontinuous structures through distributed internal melting	Zhongyang Li, Institute of Materials Physics and
		B14	Liquid/Solid Interface energy and Its Anisotropy of Pure Metals	Zhongyun Fan, BCAS, Brunel University London
		B15	Electromagnetic Control of Metal Solidification: From Fundamental Physics to Industrial Applications	Qingwei Bai, University of Greenwich
		B16	Adaptation of a Spherical Neural Network Approach for Estimating the Solidification Time of Complex Geometries	Maximilian Erber, Technical University of Munich
	Machine Learning and Big Data	B17	Data Acquisition for Data-Driven Mold Filling and Deviation Analysis in High Pressure Die Casting of AlSi10Mg	Rohit Randhavan, University of Augsburg
		B18	Integration of rapid process modelling into a digital twin of a wire arc additive manufacturing cell	Robin C. Laurence, University of Manchester
		B19	Machine learning surrogates for phase field modelling of rapid solidification	Simon A. Savukoski, VTT Technical Research
		B20	A strong form meshless method for through-process thermo-mechanical modelling of the steel production process	Gašper Vuga, Faculty of Mechanical Engineering, University of Ljubljana