HENRY ROYCE INSTITUTE

EVENT PROGRAMME

MATERIALS 4.0 AI IN MATERIALS SCIENCE SHOWCASE

19 March 2026

9:30 - 17:00

King's House Conference Centre,
Sidney Street, Manchester, M1 7HB

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This event has been made possible through funding from the Engineering and Physical Sciences Research Council, part of UK Research & Innovation

UKRI Engineering and Physical Sciences Research Council

MATERIALS 4.0
AI IN MATERIALS SCIENCE SHOWCASE

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19 March 2026
Morning Session: 09:00 - 12:30

King's House Conference Centre, Sidney Street, Manchester, M1 7HB

TIME	TITLE	SPEAKER
09:00 – 09:45	Arrival & Registration	
09:45 – 10:00	Welcome	**Prof. Ian Kinloch & Prof. David Knowles,** *Henry Royce Institute*
10:00 – 10:20	Materials 4.0	**Emma Peacock,** *Urban Foresight*
10:20 – 10:50	Digitalisation at Royce for Materials 4.0	**Prof. Jacqui Cole,** *Royce & University of Cambridge*
10:50 – 11:05	Cellerate - Materials Acceleration Platforms for Battery Innovation	**Dr Richard Fields,** *Cellerate*
11:05 – 11:25	MAESTRO - Materials Acceleration Engine for Synthesis, Testing, and Research Orchestration	**Prof. Sam Cooper,** *Imperial College London*
11:25 - 11:55	Designing Enzymes with New Function	**Prof. Anthony Green,** *University of Manchester*
11:55 - 12:10	Beyond the dataset with datalab: data capture as a bottleneck of AI4Materials	**Dr Matthew Evans,** *Datalab Industries Ltd & University of Cambridge*
12:10 - 12:25	AI-accelerated composition optimisation of high-entropy ultra-high temperature ceramics	**Dr Samuel Magorrian,** *STFC Hartree Centre*
12:25 - 13:10	Break for Lunch (45 Minutes)	

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19 March 2026
Afternoon Session: 13:00 - 17:00

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TIME	TITLE	SPEAKER
13:10 – 13:40	Faraday Engine	**Prof. Martin Freer,** *Faraday Institution*
13:40 – 13:55	Digitising the microstructural evolution of ceramic coatings for jet engines	**Dr Dan Scotson,** *University of Manchester*
13:55 – 14:15	Application of AI to advance quantitative atomic scale transmission electron microscopy	**Prof. Sarah Haigh,** *University of Manchester*
14:15 – 14:30	The Emergence of Machine Learning and Deep Learning Based Image Segmentation for Powder and Particle Characterization in Materials	**Dr. Andy Holwell,** *ZEISS Microscopy*
14:30 – 14:45	A multimodal platform for liquid-liquid partition process monitoring aided by computer vision	**Dr. Jiyizhe Zhang,** *University of Manchester*
14:45 - 15:15	Coffee Break (30 Minutes)	
15:15 – 15:45	From Creation to Characterisation: Machine Learning for Generative Synthesis and Automated Tribology Analysis	**Dr Tameem Adel,** *National Physical Laboratory*
15:45 – 16:15	Driving Net-Zero Steel: AI-enabled quality enhance-ment and process optimisation in Steel Hot Rolling	**Prof. Cinzia Giannetti,** *University of Swansea*
16:15 – 16:30	AI-Accelerated Discovery of Thermoelectric Materials	**Dr. Jack Broad,** *Mater-AI*
16:30 – 16:45	How machine learning is delivering value in industry	**Dr Hannah Melia,** *Citrine Informatics*
16:45 – 17:00	AI for Material Modelling – Enabling Smarter Structural Integrity Assessment	**Dr Sina Safari,** *University of Bristol*

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