Leverhulme Research Centre for Functional Materials Design
3rd Biennial Materials Symposium

PROGRAMME: Tuesday 12th November 2024

09.00 – 10.00	**Registration and Coffee**
10.00 – 10.15	**Welcome & Intro to the LRC** Prof. Andrew I Cooper Director, Leverhulme Research Centre for Functional Materials Design
Session 1:	**Chaired by: TBC**
10.15 - 10.45	**Discovering Compounds and Designing Materials** Prof. Ram Seshadri
10.45 – 11.15	**Single-crystal perovskite heterostructures** Prof. Hemamala Karunadasa
11.15 – 11.45	**Coffee Break**
11.45 – 12.15	**AI for molecular design, synthesis, and analysis** Prof. Connor Coley
12.15 – 12.45	**Autonomous research machines: Self-Optimising New Chemistry** Prof. Ruth Misener
12.45 – 14.00	**Lunch Break & Poster Session**
Session 2:	**Chaired by: TBC**
14.00 – 14.30	**Multimodal Design of Metal-Organic Frameworks** Prof. Aron Walsh
14.30 – 15.00	**Structural transitions in NaNiO2 - A Model System for Ni-rich Battery Electrodes** Prof. Sian Dutton
15.00 – 15.30	**Coffee Break**
15.30 – 16.00	**Sustainable Materials Science for a Circular Economy** Prof. Anke Weidenkaff
16.00 – 16.30	**Strategies to design quantum materials with exotic properties** Prof. Roser Valentí

PROGRAMME: Wednesday 13th November 2024

Session 3:	Chaired by: TBC
09.00 - 10.00	**Coffee**
10.00 – 10.30	**Accelerating Chemical Discovery and Development with Machine Learning and Automation.** Prof. Klavs Jensen
10.30 – 11.00	**Transforming Lab Automation with Intelligent Robotic Scientists** Dr. Gabriella Pizzuto
11.00 – 11.30	**Coffee Break**
11.30 – 12.00	**The Dutch BigChemistry consortium: towards a self-driving lab for complex molecular systems** Prof. Wilhelm Huck
12.00 – 12.30	TBC
12.30 – 14.00	**Lunch Break & Poster Session**
Session 4:	**Chaired by: TBC**
14.00 – 14:30	**Accelerated discovery through distribution and democratization of self-driving labs – A case study for batteries and electrocatalysts** Prof. Tejs Vegge
14.30 – 15.00	**A Robotic AI-Chemist Integrating Theory and Practice** Prof. Jun Jiang
15.00 – 15.30	**Coffee Break**
15.30 – 16.00	**Explainable AI for justifying automated decisions in real world domains** Prof. Katie Atkinson
16.00 – 16.30	**Surprise Talk – To be announced on the day!**
16.30 – 17.30	**Networking Drinks & Poster Presentation Session**
17.30 – 18:30	**Anfield Stadium Tours (pre booked) & Networking Drinks & poster Session Continued**
19:00 – 22:00	**Conference dinner 18:45 for seating at 19:00 in The Chemistry Suite, 3rd Floor, Main Stand, Anfield Stadium**

PROGRAMME: Thursday 14th November 2024

Session 5:	Chaired by: TBC
09.30 - 10.00	**Coffee**
10.00 – 10.30	**Supramolecular polymer material design on multiple length scales** Prof. Emily Draper
10.30 – 11.00	**Multi-fidelity Bayesian optimization of nanoporous materials for Xe/Kr separations** Prof. Cory Simon
11.00 – 11.30	**Coffee Break**
11.30 – 12. 00	**Towards Electrochemical Solutions for Hydrogen Production, Storage, and Delivery** Prof. Sossina Haile
12.00 – 12.30	**Data-Driven Innovation in Broadband Emitting Layered Nanomaterials** Prof. Milena Arciniegas
12.30 – 14.00	**Lunch Break**
Session 6:	**Chaired by: TBC**
14.00 – 14:30	**How can machine learning guided experimentation advance functional materials research...and how might it hinder us?** Prof. Joshua Schrier
14.30 – 15.00	**I, for one, welcome our new AI partners** Dr. Ian Foster
15.00 – 15.30	**Understanding and controlling the crystallisation dynamics of halide perovskites: The path to improved performance and stability** Prof. Nakita Noel
15.30 – 16:00	**Prize Presentation & Closing remarks**