

6th SURE Workshop Programme

Room LAK2.06, Lakatos Building, London School of Economics

Monday, 17th June

Chair: Oscar Westerblad

- 13.45 – 14.35 **Inference, Action, & Scientific Representation**
Alison Springle & Elay Shech
- 14.35 – 15.25 **Surrogate Reasoning and Direct Representation**
Dun Xiang
- 15.25 – 15.55 *Coffee Break*
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Chair: Adham El Shazly

- 16.00 – 16.50 **Generality vs Analogy in Interdisciplinary Model Transfer**
Peter Tan
- 16.50– 17.40 **Restructuring Understanding's Object: Idealizations and Structuralist Representation**
Alexander Belak
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- 18.00 – 19.15 **KEYNOTE LECTURE**
Explaining a Brain: The Dance Language of The Bee
Prof. Barbara Webb (University of Edinburgh)
Chair: Roman Frigg

*IMPORTANT: The keynote will take place in room PAN.G.01, not in room LAK2.06.

Tuesday, 18th June

Chair: Peter Tan

- 9.45– 10.35 **Reverse Analogical Inferences: Gerrymandering the Source Domain Representation**
Jessica Lauman-Lairson
- 10.35 – 11.25 **How Predictive Can Understanding Be in Scientific Practice?**
Wiktor Rorot & Marcin Miłkowski
- 11.25 – 12:15 **Understanding Deep Learning Geometrically: Conceptual Spaces in Deep Neural Networks**
Annika Schuster
- 12.15 – 13.25 *Lunch Break*
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Chair: Hernán Bobadilla

- 13.30 – 14.20 **On Machine Learning-generated Representational Artifacts (Online)**
Maximilian Noichl, Rona Aviram, Andrea Loettgers
- 14.20 – 15.10 **Navigating the Black Box: Understanding Particle Physics with Deep Neural Networks and eXplainable Artificial Intelligence**
Frauke Stoll

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15.10 – 15.35 *Coffee break*

Chair: Myron Penner

15.40 – 16.30 **Don't Call Me a Model: On Organisms as Flexible Model Carriers**

Guido I. Prieto & Alejandro Fábregas-Tejeda

16.30 – 17.20 **Understanding Through Coordinated Practices: Uses of Deep Learning Algorithms in Structural Biology (Online)**

Dana Matthiessen

Wednesday, 19th June

Chair: Adham El Shazly

9.45 – 10.35 **Science, Art, and Understanding**

Myron A. Penner, Amanda J. Nichols

10.35 – 11.25 **Representation in Science and Aesthetics: A Comparative Approach (Online)**

Domingos Faria

11.25 – 12.15 **Understanding in Psychiatric Science**

Nina de Boer

12.15 – 13.25 *Lunch Break*

Chair: Oscar Westerblad

13.30 – 14.20 **Truth, Understanding, and Normativity in Scientific Models**

Lorenzo Spagnesi

14.20 – 15.10 **Factivity in Storylines-based Scientific Understanding**

Hernán Bobadilla

15.10 – 15.35 *Coffee break*

Chair: Wiktor Rorot

15.40 – 16.30 **Seeing and Understanding the 'Unseeable': The EHT Images of M87* Black Hole as Epistemic Tools**

Paula Muhr

16.30 – 17.20 **Why do we love pictures (for the wrong reasons): Scientific pictures, models, and their justification**

Lorenzo Sartori
