

## Models & Representations in Science

Conference of the Académie Internationale de Philosophie des Sciences (Bruxelles)

Monday, September 25th, 2023: Arrival of participants Hotel Ibis Budget Muenster City

Tuesday, September 26th, 2023:

Venue: Universität Münster Fürstenberghaus; Domplatz 20-22

9.00-9.30 Welcome of Participants

Chair: Hans-Peter Großhans

• Speakers: Prof. Michael Quante, Vice-Rector of the University of Münster

Prof. Jure Zovko, President of AIPS

9.30-10.15 Johan van Benthem: "The importance of representation in enabling logical

## reasoning"

10.15-11.00 Itala Loffredo d'Ottaviano: "Partial-structures and partial-truth in science"

11.00-11.15 Coffee Break

11.15-12.00 Chen Bo: "Does Logic Represent This World and Our Mind? Yes!"

12.00-12.45 Hannes Leitgeb: "On Non-Representational Parts of Models"

13:00-15:30h Lunch Break

15.30-16.15 Demetris Portides: "Idealization and Abstraction in Scientific Models"

16.15-17.00 Michel Ghins: A defense of the structural view of scientific representation

17.00-17.45 **Jean-Guy Meunier**: Modeling computer assisted conceptual analysis from philosophical texts

17.45-18.00 Coffee Break

18.00- 18.45 **Pablo Lorenzano**: "Models and theory construction: structuralist and models in scientific practice programs

18.45-19.30 **Bernard Feltz**: "Modelising and simulating in biology: a comparative approach"

Wednesday, September 27th, 2023

9.00-9.45 **Hans Lenk:** "Representation from technological modelism via perspectivistic pluralism towards"

9.45-10.30 **Jure Zovko/Jörn Witt**: "Diagnosis as an explanatory model of reality: Philosophical-medical approaches."

10.30-11.15 Lorenzo Magnani: Model-based scientific cognition as epistemic warfare

11.15-11.30 Coffee Break

11.30-12.15 Hans-Jörg Rheinberger: Modeling in Experimentation

12.15-13.00 John Symons: "What is the scientific value of machine learning models?"

13:00-15:30 Lunch Break

15.30-16.15 **Gerhard Schurz**: The Principle of Total Evidence: Justification and Political Significance

16.15-17.00 **Brigitte Falkenburg:** "Mechanistic and Probabilistic Models in Astroparticle Physics"

17.00-17.15 Coffee Break

17.15-18.00 **Jesus Pedro Zamora Bonilla**: "Models and representations in an inferential-deflationary view of scientific knowledge"

18.00-18.45 **Marco Buzzoni**: "Thought experiments and computer simulations: a comparison"

18.45-19.30 Atocha Llera Aliseda: "Models of change"

Thursday, September 28th, 2023

9.00-9.45 Alberto Cordero: "Models and representation in functional realism"

9.45-10.30 **Anjan Chakravartty**: "Models of science education and representations of science"

10.30-11.15 Martin Carrier: "Model-building in practice-driven research"

11.15-11.30 Coffee Break

11.30-12.15 **Gregor Schiemann**: "Scientific Worldviews and Models in Hermann von Helmholtz and Werner Heisenberg"

12.15-13.00 Jan Faye: "Models or theories: what is the real representation in Science?"

13:00-15:00 Lunch Break

15.00-15.45 **Gino Tarozzi**: "Non-standard realistic models of quantum phenomena and new forms of complementarity"

15.45-16.30 **Gräb-Schmidt, Elisabeth:** "Model and Normativity: On the Relation of Nature – Technology – Ethics"

16.30-17.15 **Hans-Peter Grosshans:** "What do models in theology represent? The example of the trinitarian model of God"

17.30-20.00 General Assembly

20.15 Gala dinner

Friday, September 29th, 2023

9.00-9.45 **Harvey Brown:** "Do symmetry principles explain conservation laws in physics? Lessons from the modern (first) Noether theorem"

9.45-10.30 **Dennis Dieks**: "Factivity of Representation in Science"

10.30-11-15 Otavio Bueno: "Empiricism and microscopy"

11.15-11.30 Coffee Break

11.30-12.15 **James McAllister**: "Are empirical data representations?"

12.15-13.00 Reinhard Kahle: "Hilbert on sciences"

13:00-15:30 Lunch Break

15.30 City tour & visit to the museums in Münster