

**THURSDAY, Mar 10<sup>th</sup>**

09:15 – 10:30 **Plenary Lecture IV:** Paul Hoyningen-Huene (Room 3D)  
10:30 – 11:00 **Refreshments** (served in foyer)  
11:00 – 13:00 **Parallel Sessions IV** (Rooms 3B, 3C, 3D, 22 and 24)  
13:00 – 15:00 **Lunch Break**  
15:00 – 16:15 **Plenary Lecture V:** Gila Sher (Room 3D)  
16:15 – 16:45 **Refreshments** (served in foyer)  
16:45 – 18:45 **Parallel Sessions V** (Rooms 3B, 3C, 3D, 22 and 24)

**FRIDAY, Mar 11<sup>th</sup>**

09:15 – 11:15 **Parallel Sessions VI** (Rooms 3B, 3C, 3D, 22 and 24)  
11:15 – 11:45 **Refreshments** (served in foyer)  
11:45 – 13:00 **Plenary Lecture VI:** Stathis Psillos (Room 3D)

**Programme**

**TUESDAY, Mar 08<sup>th</sup>**

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| 13:00 – 14:30<br>Foyer | <b>Registration</b>                                                                                                                                                                                                                                                                                                                                                                             |
| 14:30 – 15:00          | <b>Opening</b>                                                                                                                                                                                                                                                                                                                                                                                  |
| Room 3D                | <b>Opening Words</b><br><br>HOLGER LYRE (President of GWP)<br>GERHARD SCHURZ (Chair of the LOC)                                                                                                                                                                                                                                                                                                 |
| 15:00 – 16:15          | <b>Plenary Lecture I</b>                                                                                                                                                                                                                                                                                                                                                                        |
| Room 3D                | <b>Plenary Lecture: <i>The Biological Character of Social Theory</i></b><br>ALEXANDER ROSENBERG<br>Chair: Paul Thorn                                                                                                                                                                                                                                                                            |
| 16:15 – 16:45          | Refreshments (served in foyer)                                                                                                                                                                                                                                                                                                                                                                  |
| 16:45 – 18:45          | <b>Symposia &amp; Contributed Papers I</b>                                                                                                                                                                                                                                                                                                                                                      |
| Room 22<br>Symposium   | <b>Constitution and Constitutional Discovery</b><br>Chair: Christian Feldbacher<br><br><i>A Theory of Constitutive Inference for the Regularity Account of Mechanistic Constitution</i><br>JENS HARBECKE<br><br><i>Bayesian Constitutional Discovery</i><br>MICHAEL BAUMGARTNER & LORENZO CASINI<br><br><i>Uncovering Constitutive Relevance Relations in Mechanisms</i><br>ALEXANDER GEBHARTER |
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Programme

TUESDAY, Mar 08<sup>th</sup>  
Conference Venue: Buildings 23.01 & 23.02

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| Room 24<br>Symposium | <b>From Genetics to Culture – Lines, Gaps and Bridges</b><br>Chair: Maria Kronfeldner                               |
|                      | <i>Epigenetics and the Explanation of Development: The Mirage of Moving Beyond Reductionism</i><br>FRANCESCA MERLIN |
|                      | <i>Possible Limits of Reductive Explanations</i><br>CHRISTIAN SACHSE                                                |
| Room 3B              | <i>Information and the Evolution of Social Preferences</i><br>CÉDRIC PATERNOTTE                                     |
|                      | <b>Philosophy of the Natural Sciences I</b><br>Chair: Mathias Frisch                                                |
|                      | <i>Quantum Gravity: An Ideology of Unification?</i><br>KIAN SALIMKHANI                                              |
| Room 3C              | <i>Physical Composition as Bonding</i><br>JULIAN HUSMANN & PAUL NÄGER                                               |
|                      | <i>Antecedent-Strengthening and Ceteris Paribus Laws</i><br>CARSTEN HELD                                            |
|                      | <b>Philosophy of the Life Sciences I</b><br>Chair: Gottfried Vosgerau                                               |
| Room 3D              | <i>Pitfalls and Perspectives in Comparative Psychology</i><br>TERESA BEHL                                           |
|                      | <i>What are Organizational Principles in Contemporary Brain Mapping?</i><br>PHILIPP HAUEIS                          |
|                      | <i>The Stimulus Perception Connection</i><br>PAUL D. THORN                                                          |

Programme

TUESDAY, Mar 08<sup>th</sup>  
Conference Venue: Buildings 23.01 & 23.02

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| Room 3D | <b>General Philosophy of Science I</b><br>Chair: Peter Brössel                                                                                                                                                                                  |
|         | <i>Emergence for Better Best System Laws</i><br>MARKUS SCHRENK                                                                                                                                                                                  |
|         | <i>Past Realists Thought the Same ...</i><br>LUDWIG FAHRBACH                                                                                                                                                                                    |
| 18:50   | <i>Some Do's and Don'ts of Defining Empirical Significance: A Carnapian Analysis</i><br>JONATHAN SUROVELL                                                                                                                                       |
|         | <b>Departure to Conference Dinner</b><br>Meeting at main entrance, walking to station<br>Christophstraße: 19:16 (U71), [for delayed persons: 19:26 (U83), 19:30 (U73)]. Exit at station Heinrich-Heine-Allee, there take exit to Bolkerstrasse. |
|         | <b>Conference Dinner</b><br>19:30 – 22:00<br>Brauerei Zum Schlüssel, Bolkerstraße 41 – 47                                                                                                                                                       |

**WEDNESDAY, Mar 09<sup>th</sup>**

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| 09:15 – 10:30 Plenary Lecture II               |                                                                                                                                        |
| Room 3D                                        | <p><b>Plenary Lecture: A (Possibly) Even Better Best System Account of Lawhood</b></p> <p>MICHELA MASSIMI      Chair: Uljana Feest</p> |
| 10:30 – 11:00                                  | Refreshments (served in foyer)                                                                                                         |
| 11:00 – 13:00 Symposia & Contributed Papers II |                                                                                                                                        |
| Room 24<br>Symposium                           | <p><b>Absences, Deficiencies and Malfunctions in Biological and Medical Explanations</b></p> <p>Chair: Thomas Reydon</p>               |
|                                                | <p><i>Functions, Malfunctioning, and Negative Causation</i></p> <p>LUDGER JANSEN</p>                                                   |
|                                                | <p><i>The Quantitative Problem for Theories of Function and Dysfunction</i></p> <p>THOMAS SCHRAMME</p>                                 |
|                                                | <p><i>Speciesism, Species Norm and the Lack of Species-Typical Traits in Moral Argumentation</i></p> <p>PETER MCLAUGHLIN</p>           |
|                                                | <p><b>Philosophy of the Natural Sciences II</b></p> <p>Chair: Michael Stoeltzner</p>                                                   |
| Room 3B                                        | <p><i>The Role of the Concept of Causation in Physics</i></p> <p>ENNO FISCHER</p>                                                      |
|                                                | <p><i>Causality in General Relativity. "Partial Determination" Revisited</i></p> <p>ANDREA REICHENBERGER</p>                           |
|                                                | <p><i>Quantum Mechanics and Retro-Causation</i></p> <p>MATHIAS FRISCH</p>                                                              |

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| Room 3C | <p><b>Philosophy of the Life Sciences II</b></p> <p>Chair: Marie Kaiser</p>                                                                                |
|         | <p><i>On Life's Dual Nature: Complex Systems Dynamics and Gene-Centeredness</i></p> <p>ALEXIS DE TIÈGE</p>                                                 |
|         | <p><i>The Philosophical Concept of Agency between Systems Biology and Artificial Intelligence</i></p> <p>ANNE S. MEINCKE</p>                               |
|         | <p><i>Teleosemantics and the Meaning of Adaptation</i></p> <p>HAJO GREIF</p>                                                                               |
| Room 3D | <p><b>General Philosophy of Science II</b></p> <p>Chair: Markus Schrenk</p>                                                                                |
|         | <p><i>From Ontological Interaction, to Epistemic Integration and Integrative Pluralism</i></p> <p>HARDY SCHILGEN</p>                                       |
|         | <p><i>Scientific Pluralism and its Trade-Offs</i></p> <p>RICO HAUSWALD</p>                                                                                 |
|         | <p><i>The Perspective of the Instruments: Mediating Intersubjectivity</i></p> <p>BAS DE BOER</p>                                                           |
|         | <p><b>History of Philosophy of Science</b></p> <p>Chair: Helmut Pulte</p>                                                                                  |
| Room 22 | <p><i>Kant's Views on Preformation and Epigenesis</i></p> <p>INA GOY</p>                                                                                   |
|         | <p><i>Theoretical Construction in Physics: The Role of Leibniz for Weyl's 'Philosophie der Mathematik und Naturwissenschaft'</i></p> <p>NORMAN SIEROKA</p> |

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|                      | <i>The Vibe around 1930: Scientism and Political Philosophy of Science</i><br>MARKUS SEIDEL                                               |
| 13:00 – 15:00        | Lunch Break                                                                                                                               |
| 15:00 – 16:15        | Plenary Lecture III                                                                                                                       |
| Room 3D              | <b>JGPS Lecture: Thomas C. Schelling and James M. Sakoda – How to Become an Unknown Pioneer?</b><br>RAINER HEGSELMANN Chair: Ulrich Krohs |
| 16:15 – 16:45        | Refreshments (served in foyer)                                                                                                            |
| 16:45 – 18:45        | Symposia & Contributed Papers III                                                                                                         |
| Room 24<br>Symposium | <b>The Relation between Philosophy of Science and Philosophy of Engineering after the Practice Turn</b><br>Chair: Gerhard Schurz          |
|                      | <i>What is a Philosophy of Science for the Engineering Sciences?</i><br>MIEKE BOON                                                        |
|                      | <i>Internalism and Externalism in the Philosophy of Engineering</i><br>PETER KROES                                                        |
|                      | <i>A Causal Perspective on Modeling in the Engineering Sciences</i><br>WOLFGANG PIETSCH                                                   |
| Room 3B              | <b>Philosophy of the Natural Sciences III</b><br>Chair: Richard Dawid                                                                     |
|                      | <i>The Fine-Tuning Argument for the Multiverse Under Attack</i><br>SIMON FRIEDERICH                                                       |
|                      | <i>Coordination, Measurement, and the Problem of Representation of Physical Quantities</i><br>FLAVIA PADOVANI                             |

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|         | <i>Holism of Climate Models and their Construction with Empirical Data and Theoretical Knowledge</i><br>RISKE SCHLÜTER                                                         |
| Room 3C | <b>Philosophy of the Life Sciences III</b><br>Chair: Jens Harbecke                                                                                                             |
|         | <i>Disease Entities, Negative Causes of Disease, and the Naturalness of Disease Classifications: Some Philosophical Problems of Scientific Medicine</i><br>PETER HUCKLENBROICH |
|         | <i>The (Dys)functionality of Psychopathy: Perspective from the Philosophy of Science</i><br>MARKO JURIAKO                                                                      |
|         | <i>Mental Disorders as Higher-Order Theoretical Terms</i><br>GOTTFRIED VOSGERAU                                                                                                |
| Room 3D | <b>General Philosophy of Science III</b><br>Chair: Carsten Held                                                                                                                |
|         | <i>Agent-Based Modeling and Democratic Theory: Improving Normative Arguments through Simulation</i><br>SIMON SCHELLER                                                          |
|         | <i>The Synchronized Aggregation of Beliefs and Probabilities</i><br>CHRISTIAN J. FELDBACHER & PAUL D. THORN                                                                    |
|         | <i>Exploratory Modes of Scientific Inquiry: From Experimentation to Modeling</i><br>AXEL GELFERT                                                                               |

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| Room 22                  | <b>Causality</b><br>Chair: David Hommen                                                                                                            |
|                          | <i>Interventions or Ranks?</i><br>TOBIAS HENSCHEN                                                                                                  |
|                          | <i>Causal Modelling and the Metaphysics of Causation</i><br>VERA HOFFMANN-KOLSS                                                                    |
|                          | <i>Is There A Monist Theory of Causal and Non-Causal Explanations? The Counterfactual Theory of Scientific Explanation</i><br>ALEXANDER REUTLINGER |
| 19:00 – 20:00<br>Room 3D | GWP Meeting                                                                                                                                        |

| THURSDAY, Mar 10 <sup>th</sup> |                                                                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 09:15 – 10:30                  | Plenary Lecture IV                                                                                                             |
| Room 3D                        | <b>Plenary Lecture: Are there Good Arguments Against Scientific Realism?</b><br>PAUL HOYNINGEN-HUENE      Chair: Thomas Reydon |
|                                | 10:30 – 11:00 Refreshments (served in foyer)                                                                                   |
| 11:00 – 13:00                  | Symposia & Contributed Papers IV                                                                                               |
| Room 24<br>Symposium           | <b>Methodological Challenges in Quantum Gravity</b><br>Chair: Wolfgang Pietsch                                                 |
|                                | <i>The Use of Black Hole Thermodynamics as Non-Empirical Confirmation</i><br>CHRISTIAN WÜTHRICH                                |
|                                | <i>On Predictions and Explanations in Multiverse Scenarios</i><br>KEIZO MATSUBARA                                              |
|                                | <i>Can We Make Sense of the Final Theory Claim in String Theory?</i><br>RICHARD DAWID                                          |
|                                | <b>Values in Science I</b><br>Chair: Cornelis Menke                                                                            |
| Room 3B                        | <i>Agnostological Challenges: How to Capture the Production of Ignorance</i><br>MARTIN CARRIER                                 |
|                                | <i>The Suppression of Medical Evidence</i><br>ALEXANDER CHRISTIAN                                                              |
|                                | <i>Die Ethik des Plagierens / The Ethics of Plagiarizing</i><br>LEONHARD MENGES                                                |

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| Room 3C | <b>Philosophy of the Life Sciences IV</b><br>Chair: Anne S. Meincke                                                                             |
|         | <i>Evolutionary Explanations</i><br>SUSANNE HIEKEL                                                                                              |
|         | <i>Types of Environments and Multi-Level Natural Selection</i><br>CIPRIAN JELER                                                                 |
| Room 3D | <i>On the Explanatory Character of the Serial Endosymbiotic Theory of the Origin of Eukaryotic Cells</i><br>JAVIER SUÁREZ & ROGER DEULOFEU      |
|         | <b>General Philosophy of Science IV</b><br>Chair: Ludwig Fahrback                                                                               |
|         | <i>Reflective Equilibrium – A Method for Philosophy of Science?</i><br>CLAUS BEISBART                                                           |
| Room 22 | <i>How Theories Travel: The Case of 'The Theory of Games and Economic Behavior'</i><br>CATHERINE HERFELD & MALTE DOEHNE                         |
|         | <i>Different Solutions to the Problem of Conflicting Reference Classes and their Application to Personalized Medicine</i><br>CHRISTIAN WALLMANN |
|         | <b>Mechanisms</b><br>Chair: Alexander Gebharter                                                                                                 |
| Room 2C | <i>Mechanisms: A Curious Trinity?</i><br>LENA KÄSTNER                                                                                           |
|         | <i>Empirically Assessing Mechanistic Constitution With Interventions</i><br>BEATE KRICKEL                                                       |
|         | <i>Viewing Marr as a Mechanist</i><br>CARLOS ZEDNIK                                                                                             |

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| 13:00 – 15:00        | Lunch Break                                                                                                                      |
| 15:00 – 16:15        | Plenary Lecture V                                                                                                                |
| Room 3D              | <b>Plenary Lecture: Truth and Scientific Change</b><br>GILA SHER<br>Chair: Gerhard Schurz                                        |
| 16:15 – 16:45        | Refreshments (served in foyer)                                                                                                   |
| 16:45 – 18:45        | <b>Symposia &amp; Contributed Papers V</b>                                                                                       |
| Room 24<br>Symposium | <b>Evidence of Mechanisms in Medicine</b><br>Chair: Beate Krickel                                                                |
|                      | <i>Evidence of Mechanisms in Medicine</i><br>MICHAEL WILDE                                                                       |
|                      | <i>Rethinking the Epistemic Significance of Mechanisms</i><br>ALEXANDER MEBIUS                                                   |
|                      | <i>Defending the Epistemic Significance of Mechanisms</i><br>VELI-PEKKA PARKKINEN                                                |
|                      | <b>Values in Science II</b><br>Chair: Alexander Christian                                                                        |
| Room 3B              | <i>Cognitive Interests and Scientific Objectivity</i><br>TORSTEN WILHOLT                                                         |
|                      | <i>Is the Argument from Inductive Risk Applicable to Pure Research?</i><br>CORNELIS MENKE                                        |
|                      | <i>Values in Species Classification</i><br>STIJN CONIX                                                                           |
|                      | <b>Philosophy of the Life Sciences V</b><br>Chair: Mieke Boon                                                                    |
|                      | <i>Explaining Human Behaviour, Changing Human Behaviour: How to be an Evolutionary Social Constructionist</i><br>JESSICA LAIMANN |

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|         | <p><i>Natural and Social Kinds: Overlaps and Distinctions</i><br/>ZDENKA BRZOVIC &amp; PREDRAG SUSTAR</p> <p><i>The Biological Reality of Race Does Not Underwrite the Social Reality of Race: A Response to Spencer</i><br/>KAMURAN OSMANOGLU</p> <p><b>General Philosophy of Science V</b><br/>Chair: Claus Beisbart</p>                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Room 3D | <p><i>Why the Psychology of Reasoning Needs Normativity: The Complex-First-Paradox</i><br/>PETER BRÖSSEL &amp; NINA POTH</p> <p><i>Predictive Coding and the Rationale of the Conjunction Fallacy</i><br/>BENJAMIN HORRIG &amp; PETER BRÖSSEL</p> <p><i>Normativity in the Philosophy of Science</i><br/>MARIE I. KAISER</p> <p><b>Philosophy of the Social Sciences and the Humanities I</b><br/>Chair: Rafaela Hillerbrand</p> <p><i>Reconsidering the "Experimental Turn" in the Humanities</i><br/>EVA-MARIA JUNG</p> <p><i>From Stability to Validity: How Standards Serve Epistemic Ends</i><br/>LARA HUBER</p> <p><i>Human Nature Between Science and Politics: Dehumanization, Essentialism and the Call for Elimination</i><br/>MARIA KRONFELDNER</p> |

FRIDAY, Mar 11<sup>th</sup>

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| 09:15 – 11:15 Symposia & Contributed Papers VI |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                | <p><b>Symposium: Mathematics as a Tool</b><br/>Chair: Nina Retzlaff</p> <p><i>Empirical Bayes as a Tool</i><br/>ANOUE BARBEROUSSE</p> <p><i>Mathematics in the Era of Big Data is not the Tool of Science, but the Science of Tools</i><br/>Juergen Jost</p> <p><i>Boon and Bane: On the Role of Adjustable Parameters in Simulation Models</i><br/>JOHANNES LENHARD</p>                                                                                                      |
| Room 24 Symposium                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                | <p><b>Philosophy of Mathematics</b><br/>Chair: Annika Schuster</p> <p><i>Gödel on Intuitionistic Logic, and Davidsonian Radical Interpretation: The Case of the Logical Constants</i><br/>FABRICE PATAUT</p> <p><i>Hilbert's Axiomatic Method and Carnap's General Axiomatics</i><br/>MICHAEL STOELTZNER</p> <p><i>Recognition Procedures and Dag Prawitz's Theory of Grounds</i><br/>ANTONIO PICCOLOMINI D'ARAGONA</p> <p><b>Confirmation</b><br/>Chair: Torsten Wilholt</p> |
| Room 3B                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                | <p><i>Of German Tanks and Scientific Theories: Estimating the Number of Unconceived Alternatives</i><br/>BURKAY ÖZTÜRK</p>                                                                                                                                                                                                                                                                                                                                                    |
| Room 3C                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|               | <i>Defending Selective Confirmation Strategy</i><br>YUKINORI ONISHI                                           |
|               | <i>Qualitative Research and Evidential Support</i><br>Corrado Matta                                           |
|               | <b>General Philosophy of Science VI</b><br>Chair: Hajo Greif                                                  |
|               | <i>Toulmin's Logical Types</i><br>DAVID BOTTING                                                               |
| Room 3D       | <i>Goodman's Paradox and Hansson's Puzzle</i><br>WOLFGANG FREITAG                                             |
|               | <i>Why Coherence Cannot be Measured as Relative Overlap</i><br>JAKOB KOSCHOLKE                                |
|               | <b>Philosophy of the Social Sciences and the Humanities II</b><br>Chair: Eva-Maria Jung                       |
|               | <i>The Role of "Ought" in Value Theory: Philosophical and Sociological Perspectives</i><br>ELIZAVETA KOSTROVA |
| Room 22       | <i>The "Invisible Hand" as a Natural Law</i><br>JUDITH WÜRGLER                                                |
|               | <i>Micro Economics Between the Natural Sciences and the Humanities</i><br>KARSTEN K. JENSEN                   |
| 16:15 – 16:45 | Refreshments (served in foyer)                                                                                |
| 11:15 – 11:45 | Lunch Break                                                                                                   |
| 15:00 – 16:15 | Plenary Lecture VI                                                                                            |
| Room 3D       | <b>Plenary Lecture: Induction and Natural Necessities</b><br>Chair: Holger Lyre<br>STATHIS PSILLOS            |

## Abstracts

### Plenary Lectures

**Plenary Lecture I**  
Chair: Paul Thorn

**Plenary Lecture**  
Room 3D, Tuesday 15:00 – 16:15

#### *The Biological Character of Social Theory*

ALEXANDER ROSENBERG  
Duke University  
alexrose@duke.edu

The social science need to take seriously their status as divisions of biology. As such they need to recognize the central role of Darwinian processes in all the phenomena they seek to explain. An argument for this claim is formulated in terms of a small number of relatively precise premises that focus on the nature of the kinds and taxonomies of all the social sciences. The analytical taxonomies of all the social sciences are shown to require a Darwinian approach to human affairs, though not a nativist or genetically driven theory by any means. Non-genetic Darwinian processes have the fundamental role on all human affairs. I expound a general account of how Darwinian processes operate in human affairs by selecting for strategies and sets of strategies individuals and groups employ. I conclude by showing how a great deal of social science can be organized in accordance with Tinbergen's approach to biological inquiry, an approach required by the fact that the social sciences are all divisions of biology, and in particular the studies of one particular biological species.