

# Integrated History & Philosophy of Science Fifth Conference

## June 26-28, 2014

### Thursday June 26

9.00 – 9.10:

**Welcome and Opening:**  
Elisabeth Nemeth  
(Dean of Faculty of Philosophy and Education)

**John D. Norton**  
(University of Pittsburgh, Co-Conveners &HPS Committee)

**Friedrich Stadler**  
(Institute Vienna Circle and Local Organizers)

9.10 – 9.50:  
**Anjan Chakravartty** (University of Notre Dame)  
“A Case Study of Case Studies:  
Scientific Realism and Integrated HPS”

9.50 – 10.30:  
**Klodian Coko** (Indiana University)  
“Jean Perrin and the Philosophers’ Stories:  
A Case Study on the Role of Case Studies in &HPS”

10.50 – 11.30:  
**Katherina Kinzel** (University of Vienna)  
“Narrative and Evidence: On the Role of Historical  
Case Studies in the Philosophy of Science”

11.30 – 12.10:  
**Mauricio Suarez** (University of Madrid)  
“The Modelling Attitude and its Roots in 19th Century Science”

12.10 – 12.50:  
**Richard Staley** (University of Cambridge)  
“Beyond the Conventional Boundaries of Physics’:  
On Relating Ernst Mach’s Philosophy to his Teaching and  
Research in the 1870s and 1880s”

14.00 – 15.20: **Symposium 1:**  
*Scientific Discovery: Historical and Philosophical Dimensions*

14.00 – 14.40:  
**Thomas Nickles** (University of Nevada)  
“Scientific Discovery and the End-of-History Fallacy”

14.40 – 15.20:  
**Samuel Schindler** (Aarhus University)  
“Scientific Discovery: That-what’s and What-that’s”

15.20 – 16.00:  
**Richard Creath** (Arizona State University)  
“The Unity of Science: Two Hundred Years of Controversy”

16.20 – 17.00:  
**Raphael Scholl, Kärin Nickelsen, Tim Rätz**  
(University of Bern, Ludwig-Maximilians-Universität,  
University of Lausanne)  
“Why the Dilemma of Case Studies Misses the Point:  
Towards an Explicit Methodology for Integrated History  
and Philosophy of Science”

17.00 – 18.00:  
**Invited lecture:**  
**Jane Maienschein** (Arizona State University)  
“Looking at Cells around 1900: Seeing Complex Systems”

### Friday June 27

9.00 – 9.40:  
**Jutta Schickore** (Indiana University)  
“‘Control(led) Experiments’ in  
Historical and Philosophical Perspective”

9.40 – 10.20:  
**Monica Solomon** (University of Notre Dame)  
“Retreading the Path of Science:  
The Case of Independent Motions”

10.40 – 11.20:  
**Teru Miyake**  
(Nanyang Technological University)  
“Scientific Inference and the Earth’s Interior:  
Harold Jeffreys and Dorothy Wrinch at Cambridge”

11.20 – 12.00:  
**Laura Georgescu** (Ghent University)  
“Experiments and Concepts in Gilbert’s *De magnete*”

12.00 – 12.40:  
**Thomas Uebel** (University of Manchester)  
“Values, Facts and Methodologies:  
A Case Study in Philosophy of Economics”

14.00 – 14.40:  
**Amy A. Fisher** (University of Puget Sound)  
“Reconsidering Priestley’s Defense of Phlogiston”

14.40 – 15.20:  
**Haixin Dang** (University of Pittsburgh)  
“William Henry Bragg and the Nature of X-Rays”

15.20 – 16.00:  
**Grant Fisher and Buhm Soon Park**  
(Korea Advanced Institute of Science and Technology [KAIST])  
“Checks-and-balances: Orbital Symmetry and Quantitative  
Methods in Late Twentieth Century Quantum Chemistry”

16.20 – 17.00:  
**Alan Chalmers** (University of Sydney)  
“Qualitative Novelty and the Scientific Revolution:  
The Emergence of the Concept of Pressure”

17.00 – 17.40:  
**Henk W. de Regt** (VU University Amsterdam)  
“Kelvin’s Dictum Revived: The Intelligibility of Mechanisms”

18.00 – 19.00  
**Invited lecture:**  
**Jürgen Renn**  
(Max Planck Institute for the History of Science Berlin)  
“On the Evolution of Knowledge:  
From Cooperative Action to Science”

### Saturday June 28

9.00 – 9.40:  
**Ann-Sophie Barwich** (Konrad Lorenz Institute)  
“Sensing the Unknown: Historicising the  
Discoverability of the Olfactory Receptors within the  
Life on an Experimental System”

9.40 – 10.20:  
**Guido Caniglia** (Arizona State University)  
“Mathematical Theory, Natural Experiments and  
Ovarian Dissections: The Epistemology of Hamilton’s  
Work on Tropical Social Wasps (1963-1968)”

10.40 – 12.40: **Symposium 2:**  
*Introspection and the Problem of the Stimulus-Error:  
Historical and Contemporary Debates*

10.40 – 11.20:  
**Uljana Feest** (Max Planck Institute for Human Development)  
“Stimulus Error and the Red Herring of Introspection”

11.20 – 12.00:  
**Gary Hatfield** (University of Pennsylvania)  
“The Stimulus Error and Experimental Design:  
The Manipulation of Perceptual ‘Set’”

12.00 – 12.40:  
**Mazviita Chirimuuta** (University of Pittsburgh)  
“The Stimulus-Error, ‘Equivocal Correlation’  
and Perceptual Constancy”

14.00 – 14.40:  
**Axel Gelfert and Jacob Mok** (National University of Singapore)  
“Styles of Reasoning in Biology:  
The Case of Models in Membrane and Cell Biology”

14.40 – 15.20:  
**Laura Nuño de la Rosa** (Konrad Lorenz Institute)  
“The Taxonomical and the Morphological  
Concepts of Type: Back to Aristotle”

15.20 – 16.00:  
**Joeri Witteveen** (Utrecht University)  
“Negotiating a Causal-historical Theory of Reference:  
The Emergence of the ‘Type Method’ in 19th Century  
Biological Taxonomy”

16.20 – 17.00:  
**Dunja Šešelja and Christian Straßer** (Ghent University)  
“Heuristic Reevaluation of the Bacterial Hypothesis  
of Peptic Ulcer Disease in the 1950s”

17.00 – 17.40:  
**Mathieu Charbonneau** (Konrad Lorenz Institute)  
“Mechanical Molecular Models and Haptic Reasoning”

17.40 – 18.20:  
**Daniel J. Nicholson and Richard Gawne**  
(University of Exeter, Duke University)  
“Neither Logical Empiricism nor Vitalism, but Organicism:  
What the Philosophy of Biology Was”

18.40 – 19.40  
**Invited lecture:**  
**Jean Gayon** (Sorbonne)  
“Natural Selection vs. Descent with Modification:  
What Comes First? Reflections on Darwin and Sober”

#### Integrated &HPS Program Committee

Theodore Arabatzis (University of Athens)  
Bernadette Bensaude-Vincent (Sorbonne)  
Jed Buchwald (California Institute of Technology)  
Alan Chalmers (University of Sydney)  
Hasok Chang (University of Cambridge)  
Moti Feingold (California Institute of Technology)  
Jean Gayon (Sorbonne)  
Don Howard (University of Notre Dame)  
Manfred Laubichler (Arizona State University)  
Alan Love (University of Minnesota)  
Jane Maienschein (Arizona State University)  
Michela Massimi (University of Edinburgh)  
Bill Newman (Indiana University)  
John D. Norton (University of Pittsburgh)  
Robert Rynasiewicz (Johns Hopkins University)  
Jutta Schickore (Indiana University)  
Alan Shapiro (University of Minnesota)  
Friedrich Stadler (Technische Universität Berlin)

#### Co-Conveners

Don Howard (University of Notre Dame)  
John D. Norton (University of Pittsburgh)

#### Local Organizers

Martin Kusch (Department of Philosophy)  
Elisabeth Nemeth (Dean of Faculty of Philosophy and Education)  
Friedrich Stadler (Institute Vienna Circle)