

Workshop

Generating Experimental Knowledge

14 – 16 June 2007

Bergische Universität Wuppertal
Gästehaus Campus Freudenberg

G. Hon (Haifa), U. Feest (Berlin), H.-J. Rheinberger (Berlin),
J. Schickore (Bloomington), F. Steinle (Wuppertal)

Thursday, 14 June

9:00–12:40 *Concepts, Objects, Entities*

Welcome, Introduction

Theo Arabatzis (Athens): "Experimenting on hidden entities: the fusion of representation and intervention?"

Uljana Feest (Berlin): "Concepts as tools in the experimental generation of knowledge in psychology"

Hanne Andersen (Århus): "Experiments and conceptual change"

14:00–17:20 *Domains of Experimental Knowledge*

Martin Carrier (Bielefeld): "Understanding experimentation in applied research"

Francesco Guala (Exeter): "What do experimental economists know?"

Catherine Goldstein (Paris): "How to generate mathematical experimentation, and is it mathematical knowledge?"

17:20–17:50 *Comment (Giora Hon, Haifa)*

18:30–20:00 *Round Table Discussion:*

"History and Philosophy of experimentation: More than a marriage of convenience?"

Friday, 15 June

9:00–12:15 *Reasoning from Experiments*

Marcel Weber (Basel): "Mechanism, experimental reasoning, and inference to the best explanation"

Gregor Schiemann (Wuppertal) "Experimental knowledge and the theory of producing it: Hermann von Helmholtz"

Gerd Grasshoff (Bern): "Causal reasoning and experimentation"

12:15–12:45 *Comment (Friedrich Steinle, Wuppertal)*

Saturday, 16 June

9:00–13:20 *Knowledge in Experimental Systems*

Giora Hon / Galina Granek (Haifa): "Generating experimental knowledge: the invention and development of the Scanning Tunneling Microscope"

Moritz Epple (Frankfurt/M.): "Adjusting mathematics and experimental systems: Episodes from early aerodynamics"

Igal Dotan (Berlin): "Evolutionizing aging: problems, programs, progress"

Lambert Williams (Cambridge, MA): "Experimental systems and quasi-disciplines"

15:00–18:20 *Tests and Artifacts*

Christian Sichau (München): "How can an experimenter ever be sure about his results? Mutually stabilising elements of experimental knowledge"

Thomas Dohmen (Haifa): "The dynamics of knowledge generation: comparison, variation and optimization in experimentation"

Jutta Schickore (Bloomington, IN): "'Pretensions, defects, and excellencies: Test objects for microscopes"

18:20–19:00 *Comment (Hans-Jörg Rheinberger, Berlin)*