

PHILOSOPHY AND COGNITIVE SCIENCE RESEARCH COLLOQUIUM



Stiftung
Mercator



Mercator
Research Group

Organization:

Prof. Dr. Markus Werning & Dr. Simone Duca.

Website: www.rub.de/phil-lang.

Venue: Thu. 12. May 2011, 16-18h, GA 04/187.

All interested students, scientists, and scholars are cordially invited to the following talk of the research colloquium:

Prof. Dr. Gabriele Kern-Isberner (U Dortmund) Conditional Perspectives for Belief Revision

The research area of belief revision emerged from philosophy but has found a very broad interest in the computer science domain as well. It is concerned with investigating the processes that allow rational agents to change their mind in the light of new information, and its standards are roughly set by the so-called AGM theory that is based on a seminal paper of Alchourron, Gärdenfors and Makinson in 1985. Recent years have witnessed a vivid discussion on the distinction of different types of belief change, in particular, revision and update, and on iterating revision. This talk will present a broad view on belief change processes that makes use of conditionals as basic entities. Since conditionals may encode revision strategies via the Ramsey test, this allows for dealing with iterated belief change processes right from the beginning and thus overcomes one of the limitations of AGM theory. We will interpret the central notions of revision and update in terms of simultaneous and successive belief change and present suitable belief change operations using Spohn's ordinal conditional functions accordingly.

Gabriele Kern-Isberner holds a diploma and doctoral degree in mathematics from the University of Dortmund. She did her habilitation in computer science at the Fern Universität in Hagen. She worked as a research assistant and as a lecturer at the universities of Dortmund, Hagen, and Leipzig. Since 2004, she has been a professor for information engineering at the department of computer science at the University of Dortmund. Her scientific work focuses on qualitative and quantitative approaches to knowledge representation, such as default and non-monotonic logics, uncertain reasoning, probabilistic reasoning, belief revision, and argumentation, as well as multi-agent systems and knowledge discovery.