



## EINLADUNG ZUM KOLLOQUIUM

**Dunja Šešelja**  
(Bochum)

### **Using Agent-Based Models to Explain Scientific Inquiry: current limitations and future prospects**

Over the last decade agent-based models (ABMs) have become an increasingly popular method in social epistemology and philosophy of science. In this talk, which is based on joint research with Daniel Frey, I will discuss the epistemic function of ABMs of scientific inquiry, which have been used in investigations of efficiency of inquiry and conditions that are conducive to it. On the one hand, I argue that a class of ABMs proposed in the recent literature are not informative of actual scientific practice, and that they currently play an exploratory (rather than explanatory) role. On the other hand, I suggest that if ABMs of science underwent two types of robustness analysis, they could be used as providing evidence for philosophical and historical hypotheses. I illustrate this point with an example of a model of scientific interaction—building on the work by Kevin Zollman—which is applied to a concrete historical case study: the research on peptic ulcer disease.

**Dunja Šešelja** is a postdoctoral researcher at the Munich Center for Mathematical Philosophy (MCMP) at LMU Munich, and an associate member of the Research Group for Non-Monotonic Logics and Formal Argumentation at Ruhr-University Bochum. Her research lies at the intersection of integrated history and philosophy of science, methodology of science, social epistemology, and formal modeling of scientific inquiry. Her recent research focuses on agent-based models of scientific inquiry and their epistemic function.

**Mittwoch, 07.11.2018**  
**18 Uhr c.t.**  
**Raum N.10.20**

Kontakt: [iz1@uni-wuppertal.de](mailto:iz1@uni-wuppertal.de),  
[www.izwt.uni-wuppertal.de](http://www.izwt.uni-wuppertal.de)

