

## SFB/TR 8 Spatial Cognition / IQN Video Conference

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**Research Group Onto-Med, IMISE**  
**University of Leipzig**

**Principles of Ontological Modeling**  
**A Top Level Approach**

Research in ontology has in recent years become widespread in the field of information systems, in distinct areas of sciences, in business, in economy, and in industry. The importance of ontologies is increasingly recognized in fields diverse as in semantic web, empirical sciences as biology and medicine, information integration, natural language processing, knowledge engineering, and databases. An ontology or ontological model supplies a unifying framework for communication and establishes the basis for representation of knowledge about a specific domain  $D$ . Hence, in our approach we consider an ontological model of a domain  $D$  to be a conceptual system which represents essential aspects about  $D$ . The relation between the model and the independent reality is based on the notion of an integrative realism. In the lecture the main steps for building an ontological model are discussed, in particular, we consider the step of domain specification (proto-ontology), the building of a conceptualization, and the development of an axiomatization. Every of these steps is supported by a top-level ontology and by the logical method of ontological reduction. In our approach we use the top level ontology GFO (General Formal Ontology) which is being developed by the research group Onto-Med.

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informelle Kaffeerunde: 15.15  
Vortragsbeginn: 15.30 Uhr

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