

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

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### **A cognitive approach for modeling and reasoning on common sense knowledge in computational ontologies**

Representing and reasoning on common sense knowledge is still an open research topic both in Cognitive Science and Artificial Intelligence. In Cognitive Science evidences exist in favor of prototypical concepts, and typicality-based conceptual reasoning has been widely studied. Conversely, in the field of computational models of cognition, most contemporary symbolic oriented knowledge representation (KR) systems, including formal ontologies, do not allow - for technical convenience - neither the representation of concepts in prototypical terms nor forms of approximate, non monotonic, conceptual reasoning.

In this talk I will present an analysis of this state of affairs and will propose a cognitively inspired system based on a hybrid conceptual architecture, combining conceptual spaces and ontological representations, relying upon the theoretical assumption of the so called “dual process theory of mind”, coming from the field of psychology of reasoning. An implemented prototype of such system has been tested in the task of automatic categorization of linguistic stimuli in a question/answering setting. The obtained preliminary results will be presented and the future directions of the work will be outlined.

- Freitag, 07. März 2014  
informelle Kaffeerunde: 15:15  
Vortragsbeginn: 15:30

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