



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

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## Algebraic Properties of Qualitative Spatio-Temporal Calculi

Qualitative spatial and temporal reasoning is based on so-called qualitative calculi. Algebraic properties of these calculi have several implications on reasoning algorithms. But what exactly is a qualitative calculus? And to which extent do the qualitative calculi proposed meet these demands? The literature provides various answers to the first question but only few facts about the second. In this paper we identify the minimal requirements to binary spatio-temporal calculi and we discuss the relevance of the according axioms for representation and reasoning. We also analyze existing qualitative calculi and provide a classification involving different notions of relation algebra.

This is joint work with Frank Dylla, Till Mossakowski, and Diedrich Wolter.

- Freitag, 2. August 2013 informelle Kaffeerunde: 15:15 Vortragsbeginn:15:30
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