



Diplomanden- und Doktorandenseminar  
des Instituts für Informatik

## Model Checking of Rational Behaviour of Agents

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Sometimes in game theory we want to know if a fixed player can manage a situation and reach an individual or collective goal. Alternating-time Temporal Logic (ATL) allows knowing if such strategies exist in our model, although it is not enough powerful when we want to know something about how these goals are going to be reached (which strategies to take) or if the taken strategies will be rational (given a definition of rational). Commitment ATL (CATL) and ATL with Plausibility (ATLP) allow respectively this kind of knowledge.

In my diplom thesis I study ATL and its extensions (CATL and ATLP) and at the same time I develop a tool to model check formulas from ATL and its extensions against a Game Structure (check their satisfiability).

Dienstag den 24. Juli 2007  
10.30 Uhr in Raum 106