



Diplomanden- und Doktorandenseminar
des Instituts für Informatik

Verifying Agents with Memory is Harder than It Seemed

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ATL+ is a variant of the alternating-time temporal logics that does not have the expressive power of full ATL*, but still allows for expressing some natural properties of agents. It has been believed that verification with ATL+ is Δ_3 -complete for both memoryless agents and players who can memorize the whole history of the game. In this talk, we show that the latter result is not correct. That is, we prove that model checking ATL+ for agents that use strategies with memory is in fact PSPACE-complete. On a more optimistic note, we show that fairness constraints can be added to ATL+ without further increasing the complexity of model checking, which makes ATL+ an attractive alternative to the full language of ATL*.

Montag, den 03.05.2010

11 Uhr s.t. in Raum 210, IfI, Am Regenbogen 15