



The Specification of Agent Interaction in Multi-Agent Systems

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Author(s)

Dmitri CHEREMISINOV

ABSTRACT

The problem of the description of interaction between agents in a multi-agent system (MAS) in the form of dialogues of negotiations is considered. For formalization of the description of interaction at a level of steps of the dialogue which is carried out in common by two spatially divided agents, the concept of synchronization of processes is analyzed. The approach to formalization of the description of conditions of synchronization when both the independent behaviour, and the communications of agents can be presented at a level of logic is offered. It is shown, that the collective behavior of agents can be described by the synthetic temporal logic that unite linear and branching time temporal logics.

KEYWORDS

interaction protocol, temporal logic, parallel algorithm

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