

Sondervortrag

Am Montag, dem 23. Mai 2011, um 17:30 Uhr hält

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einen Vortrag mit dem Titel

Succinct Discrete Time Approximations of Distributed Hybrid Automata

Der Vortrag findet im OFFIS, Escherweg 2, Konferenzraum F02 statt.

Kurzfassung:

We consider a network of hybrid automata that observe and control a plant whose state space is determined by a finite set of continuous variables. We assume that at any instant, these variables are evolving at (possibly different) constant rates. Each automaton in the network controls-i.e. can switch the rates of a designated subset of the continuous variables without having to reset their values. These mode changes are determined by the current values of a designated subset of the variables that the automaton can observe. We require the variables controlled-in terms of effecting mode changes-by different hybrid automata to be disjoint. However, the same variable may be observed by more than one automaton.

We study the discrete time behavior of such networks of hybrid automata. We show that the set of global control state sequences displayed by the network is regular. More importantly, we show that one can effectively and succinctly represent this regular language as a product of local finite state automata.

Eingeladen von: Prof. Dr. Werner Damm