EINLADUNG

An der Fakultät für Informatik wird Ivan Stojic, Ca’ Foscari University of Venice, Italy; Dept. of Environmental Sciences, Informatics and Statistics einen Vortrag halten über

Perfect Sampling in Stochastic Petri Nets Using Decision Diagrams

ORT: OH16, Raum 205
ZEIT: Montag, 7. Dezember 2015, 14:15 Uhr

ZUSAMMENFASSUNG:

Stochastic Petri nets (SPN) are an important formalism for performance evaluation of telecommunication systems and computer hardware and software architectures whose underlying process is a continuous time Markov chain (CTMC). Since solving a CTMC underlying an SPN is often computationally too expensive due to state space explosion, simulation and sampling techniques are often used in analysis of SPN models. In this talk we present an algorithm for generating samples from stationary probability distribution of the CTMC underlying an SPN. The algorithm uses uniformization and decision diagrams to exploit regularities in structure of CTMCs obtained from SPNs in order to efficiently implement coupling from the past, a well known algorithm for perfect sampling.