

Incremental Decision Procedures for Modal Logic with Nominals and Eventualities

Gert Smolka

Saarland University
smolka@ps.uni-saarland.de

The talk will discuss different decision procedures for modal logic with nominals and eventualities. This logic has an EXPTIME-complete decision problem and is not compact. There is a simple and worst-case optimal decision procedure, which is not practical since it is not incremental. I will discuss two incremental procedures, one worst-case optimal procedure for the fragment without nominals, and one not worst-case optimal procedure for the full logic. A main concern will be the correctness arguments for the procedures.

The talk is based on joint work with Mark Kaminski.