

# Finite Tree Automata in Horn Clause Transformations

(Invited Talk)

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In this talk we look at the fruitful connections between finite tree automata and Horn clause transformations. Horn clause derivations are finite trees and this leads to a straightforward correspondence between a set of Horn clauses and a finite tree automaton. We explore the role of this connection in Horn clause transformations used in program analysis and verification, including elimination of derivations, decomposition of clauses into sets giving derivations of different tree dimension and generation of multiple versions of predicates.