

- Abstract
- Introduction
 - problem
 - solution approach
 - related work
 - structure of thesis
- Timing Constraints
 - AUTOSAR Timing Extensions
 - * goals and basics
 - * problems with definitions AUTOSAR Timing Extensions
 - not formal enough
 - not reasonable monitorable
 - TIMMO-2-USE
 - * goals and basics
 - * explanatory parenthesis
 - A Simple and Flexible Timing Constraint Logic
 - * overview of constraints
 - comparison TIMMO-2-USE Constraints \leftrightarrow AUTOSAR Timing Extensions
 - * which are missing
 - * subsets, supersets
- monitorability models
 - TeSSLa basics
 - * definitions of streams
 - * possibility of non-intrusive online monitoring
 - finite transducers
 - timed moore automata
 - finite timed transducers
 - * ϵ -extension
- monitorability
 - problem of indiscrete time stamps
 - finite monitorability
 - finite monitorability with single delay
 - non-finite monitorability

- * infinite memory requirements in worst case scenario
 - * continuous growth of memory requirements in "all" cases
- TIMMO-2-USE II
 - memory usage
 - monitorability of each constraint
- implementation
 - evaluation
 - * theoretical
 - O-notation for each in constraint per timestamp with events (memory and time)
 - * practical
 - performance in scala-interpreter using large random generated traces
- summary and outlook