Monitoring, Fault Diagnosis and Testing Real-time Systems using Analog and Digital Clocks

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The work presented in this Dagstuhl seminar has been done with a number of colleagues of mine and reported in the papers that are cited below. Among the interesting open problems, it is perhaps worth mentioning the following: the decidability of checking whether an analog-clock diagnoser can be represented as a timed automaton [1]; the decidability of existence of digital-clock diagnosers [12]; the implementability of timed automata in general and monitors, diagnosers and testers in particular [8]; a complete study of state-identification and related problems in the context of timed automata [7, 10]. An additional research direction could be to extend the study of the problems treated in [13, 14] from the untimed to the timed domain.

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