96m:68047 68Q10 68Q55

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A complete axiomatization of timed bisimulation for a class of timed regular behaviours. (English. English summary)

Theoret. Comput. Sci. **152** (1995), *no.* 2, 251–268.

Standard process algebras, such as CCS, CSP and ACP, have recently been extended with constructs allowing for the modelling of timing aspects in the behavior of processes.

Wang Yi has proposed a notion of bisimulation equivalence for timed CCS and given a complete axiomatization for the language of recursion-free closed terms. In the present paper a complete axiomatization of the language TC of timed terms with finite state recursion is presented. The set of axioms considered differs from that of Wang Yi by a new persistency axiom.

The proof of completeness uses an adaptation of Milner's arguments for the proof of completeness of axioms for strong bisimulation and observational congruence over CCS processes.

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