Failures semantics based on interval semiwords is a congruence for refinement. (English)

Summary: Concurrent systems are modelled with safe Petri nets. The coarsest equivalence contained in failure equivalence is determined that is a congruence with respect to refinement. It is shown that in this context partial orders are necessary for the description of system runs: what is needed here are so-called interval orders.

MSC:
68Q55 Semantics in the theory of computing
68Q10 Modes of computation (nondeterministic, parallel, interactive, probabilistic, etc.)
68Q85 Models and methods for concurrent and distributed computing (process algebras, bisimulation, transition nets, etc.)

Keywords:
action refinement; partial order semantics; divergence; failures semantics; Petri nets; interval orders

Full Text: DOI

References:


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