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Relaxed models for rewriting logic. (English) Zbl 1018.68036

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Summary: We modify the definition of the models for rewrite theories by replacing the equality of functors, defined by E -equal terms, with the equality via a natural isomorphism, called natural symmetry. The relaxation process can be adapted by relaxing all or only a part of the equations, and by relaxing the state structure (and implicitly the computation structure) or just the computation structure. We also consider the subclasses of C -coherent models, where C is a set of equations specifying a collection of commutative symmetry diagrams. The result is a wide palette of model classes which offers more flexibility in modeling concurrent systems.

MSC:

68Q42 Grammars and rewriting systems

Cited in 1 Document

Keywords:

rewriting logic; relaxed models; categories with algebraic structure

Software:

CafeOBJ

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