

Problem #9

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Summary: Is left-sequentiality a decidable property of orthogonal systems?

Thatte [Tha87] showed that an orthogonal constructor-based rewrite system is left-sequential if and only if it is strongly sequential. Does this equivalence extend to the whole class of orthogonal term-rewriting systems? If not, is left-sequentiality a decidable property of orthogonal systems? See also [KM91].

Bibliography

- [KM91] Jan Willem Klop and Aart Middeldorp. Sequentiality in orthogonal term rewriting systems. *Journal of Symbolic Computation*, 12:161–195, 1991.
- [Tha87] S. Thatte. A refinement of strong sequentiality for term rewriting with constructors. *Information and Computation*, 72:46–65, 1987.