Aman, Bogdan; Ciobanu, Gabriel

Summary: The evolution of a reaction system is usually driven by a fixed set of unconstrained rules. In this paper, we present a different approach by imposing some constraints over the rules. Thus, we define restricted reaction systems which are working with mutually exclusive rules, namely rules that are not allowed to be applied together in the same computational step. We investigate the relationship between the reaction systems and the new restricted reaction systems. Additionally, we analyze the notion of reversibility in both reaction systems and restricted reaction systems.

MSC:
68Q07 Biologically inspired models of computation (DNA computing, membrane computing, etc.)

Keywords:
reaction systems; mutually exclusive rules; reversibility

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References:

[17] Lanese, I.; Mezzina, CA; Stefani, JB, Reversing higher-order \( (\backslash p i \backslash ) \), Lecture Notes in Computer Science, 6269, 478-493 (2010) · Zbl 1287.68137 · doi:10.1007/978-3-642-15375-4_3


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