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The generative power of weighted one-sided and regular sticker systems (Conference Paper)

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Abstract

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Sticker systems were introduced in 1998 as one of the DNA computing models by using the recombination behavior of DNA molecules. The Watson-Crick complementary principle of DNA molecules is abstractly used in the sticker systems to perform the computation of sticker systems. In this paper, the generative power of weighted one-sided sticker systems and weighted regular sticker systems are investigated. Moreover, the relationship of the families of languages generated by these two variants of sticker systems to the Chomsky hierarchy is also presented. © 2014 AIP Publishing LLC.

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