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Multiset controlled grammars: A normal form and closure properties (Article)

 Ashaari, S.^a
[ORCID](#)
 Turaev, S.^a
[ORCID](#)
 Tamrin, M.I.M.^a
[ORCID](#)
 Okhunov, A.^b
[ORCID](#)
 Zhukabayeva, T.^c
[ORCID](#)
^aKulliyah of Information and Communication Technology, International Islamic University Malaysia, Kuala Lumpur, Malaysia

^bKulliyah of Engineering, International Islamic University Malaysia, Kuala Lumpur, Malaysia

^cFaculty of Information Technology, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan

Abstract

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Multisets are very powerful and yet simple control mechanisms in regulated rewriting systems. In this paper, we review back the main results on the generative power of multiset controlled grammars introduced in recent research. It was proven that multiset controlled grammars are at least as powerful as additive valence grammars and at most as powerful as matrix grammars. In this paper, we mainly investigate the closure properties of multiset controlled grammars. We show that the family of languages generated by multiset controlled grammars is closed under operations union, concatenation, Kleene-star, homomorphism and mirror image. © 2017 Institute of Advanced Engineering and Science. All rights reserved.

Author keywords

[Closure property](#)
[Generative capacity](#)
[Multiset](#)
[Multiset controlled grammar](#)
[Regulated grammar](#)

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