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ALL MAXIMAL COMPLETELY REGULAR SUBMONOIDS OF $Hyp_G(2)$

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Abstract

In this paper we consider mappings σ which map the binary operation symbol f to the term $\sigma(f)$ which do not necessarily preserve the arity. These mapping are called generalized hypersubstitutions of type $\tau = (2)$ and we denote the set of all these generalized hypersubstitutions of type $\tau = (2)$ by $Hyp_G(2)$. The set $Hyp_G(2)$ together with a binary operation defined on this set and the identity generalized hypersubstitution which maps f to the term $f(x_1, x_2)$ forms a monoid. In this paper, we determine all maximal completely regular submonoids of this monoid.

Keywords: generalized hypersubstitution, regular element, completely regular.

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