

T-Clones and T-Hyperidentities

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The aim of this paper is to describe in which way varieties of algebras of type τ can be classified by using the form of the terms which build the (defining) identities of the variety. There are several possibilities to do so. In [Chaj;95], [Mel;73], [Gracz;89] the authors considered normal identities, i.e. identities which have the form $x \approx x$ or $s \approx t$ where s and t contain at least one operation symbol. This was generalized in [Den-W;04] to k -normal identities and in [Chaj-D-W;04] to P -compatible identities. More general, we select a subset T of $W_\tau(X)$ and consider identities from $T \times T$. Since every variety can be described by one heterogenous algebra, its clone, we are also interested in the corresponding clone-like structure. Since identities of the clone of a variety correspond to M -hyperidentities for certain monoids M of hypersubstitutions, we will also investigate these monoids and the corresponding M -hyperidentities.

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1991 *Mathematics Subject Classification*: 08A40, 08A60, 08B05.

Key words and phrases: quasi-algebras, T -identities, j -ideal, T -hyperidentities, clones of T -terms.