

On maximal hyperclones on a finite set

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In 1974, V. V. Tarasov presented a study of maximal partial clones on $\{0, 1\}$ via an extension to the case of clones on a three element set and with introduction of a notion of quasi-composition. In that way, he determined 9 maximal classes of partial operations on a two-element set in contrast to the 8 maximal partial clones determined by Freivald in 1966. There is a complete set of partial functions in model of Tarasov that is not complete in model of Freivald. It appears that the model of Tarasov describes maximal hyperclones on a two-elements set. We will give a comparison with the usual definition of hyperclones and describe some classes of maximal hyperclones on a finite set determined by Rosenberg's classes of relations.

This is a result of a joint work with H. MACHIDA (Hitotsubashi University) and V. PANTELEYEV (Irkutsk State University).