

Limit varieties generated by completely 0-simple semigroups

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A variety of semigroups that is minimal with respect to being non-finitely based is said to be a *limit variety*. By Zorn's Lemma, each non-finitely based variety contains at least one limit subvariety. Although many examples of non-finitely based varieties are known in the literature (see [3, 5]), explicit examples of limit varieties are very rarely discovered [1, 2, 4]. The objective of the present talk is to introduce a new infinite class of limit varieties. These varieties constitute all limit varieties generated by completely 0-simple semigroups and are each generated by a finite Rees matrix semigroup over a cyclic group of prime order. Subvarieties of these limit varieties will also be described.

Results in the present talk are obtained in collaboration with M. V. VOLKOV (Ural State University, Ekaterinburg).

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