

## Finitely generated permutative varieties

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A variety is called *finitely generated* if it is generated by a finite algebra. A variety of semigroups is called *permutative* if it satisfies an identity of the form  $x_1x_2 \dots x_n \approx x_{1\pi}x_{2\pi} \dots x_{n\pi}$  where  $\pi$  is a non-identical permutation on the set  $\{1, \dots, n\}$ .

We discuss some obstacles in finding an algorithm (if there is one) that selects finitely generated varieties among semigroup varieties. We present an algorithm that selects finitely generated varieties among permutative varieties.