CHARACTERIZATION OF THE PSEUDOVARIETY GENERATED BY FINITE MONOIDS SATISFYING $\mathscr{R} = \mathscr{H}$

T. V. Pervukhina

We consider the pseudovariety generated by all finite monoids on which Green's relations $\mathscr{R}$ and $\mathscr{H}$ coincide. It is shown that any finite monoid S belonging to this pseudovariety divides the monoid of all upper-triangular row-monomial matrices over a finite group with zero adjoined. The proof is constructive; given a monoid S, the corresponding group and the order of matrices can be effectively found.

Keywords: finite monoids, monoid pseudovariety, upper-triangular matrices, Green's relations, $\mathscr{R}$-trivial monoids.

T. V. Pervukhina Ural Federal University, Yekaterinburg, 620002 Russia,
e-mail: cristofory@gmail.com.