

Finite axiomatizability of finitely generated quasivarieties whose relative congruence lattices are meet semi-distributive

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All classes of algebras are assumed to be of finite signature. Subject to this restriction, K. Baker's celebrated theorem (from about 1969) asserts that every finitely generated variety whose congruence lattices are distributive is finitely axiomatizable. Then D. Pigozzi proved (about 1987) that every finitely generated quasivariety whose relative congruence lattices are distributive is finitely axiomatizable. Next, R. Willard proved (about 1998) that every variety whose congruence lattices are meet semi-distributive and which is finitely generated as a quasivariety is finitely axiomatizable. Both the result of Pigozzi and the result of Willard generalize Baker's theorem. We shall speak about a result that unifies the mentioned results of Pigozzi and Willard; namely, every finitely generated quasivariety whose relative congruence lattices are meet semi-distributive is finitely axiomatizable. This was proved recently by a team consisting of W. Dziobiak, M. Maroti, A. Nurakuno, R. Willard and myself.