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Matthew Smedberg*, 1227 Stevenson Center, Department of Mathematics, Vanderbilt University, Nashville, TN 37240. *Permutability of abelian congruences in finitely decidable varieties*. Preliminary report.

Last year, the speaker together with R. McKenzie showed that, if \mathcal{V} is a finitely decidable locally finite variety and $\mathbf{A} \in \mathcal{V}_{\text{fin}}$, then every (strongly) solvable congruence on \mathbf{A} is (strongly) abelian. McKenzie and P. Idziak independently asked whether every two abelian congruences on an algebra in \mathcal{V} must permute. In particular, they conjecture that the largest strongly solvable congruence σ_1 must permute with the largest abelian congruence σ_2 which does not dominate any unary-type cover. In this talk, we discuss this conjecture, together with some of the known obstacles to a proof. (Received August 11, 2013)