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**JAMES CURRIE**, University of Winnipeg

*A decision procedure for morphisms avoiding Abelian  $k$ -powers*

Words avoiding repetitions are fundamental objects, used to build counter-examples in group theory, formal language theory, universal algebra and other areas. The concept of words avoiding *Abelian* repetitions is 50 years younger, and correspondingly less well-understood. I will present a decision procedure for testing whether the fixed point of a morphism avoids Abelian  $k$ -powers, and illustrate the use of this procedure on several classic morphisms.