

1135-VL-2242 **Joshua Maglione*** (jmaglion@math.kent.edu), Department of Mathematical Sciences, PO Box 5190, Kent, OH 44242. *A multilinear toolkit for isomorphism.*

We introduce a number of new structures that constrains the possible isomorphisms between groups using multilinear and nonassociative algebra. We use it to improve the complexity of isomorphism in known difficult cases and to improve our performance in practice. We report on individual and joint work with Peter A. Brooksbank, Uriya First, and James B. Wilson. (Received September 25, 2017)