1058-57-277 **Jason Cantarella** and **Jason Parsley*** (parslerj@wfu.edu), Department of Mathematics, Box 7588, Wake Forest University, Winston-Salem, NC 27109-7588. *Intrinsic symmetries of knots and links.*

For oriented knots, the question of whether a knot is invertible (isotopic to itself with the opposite orientation) and/or chiral (not isotopic to its mirror image) have great implications in mathematics and in other sciences. We consider the case of oriented links and ask similar questions: if we invert one or more components, is this isotopic to our original link? What if we permute components? Or take a mirror image? The group of transformations of this type which can be realized by an isotopy of the link is called the "intrinsic" symmetry group of that link. We present the first computations of the intrinsic symmetry groups of links with 8 and fewer crossings.

The traditional definition of the symmetry group of a link is the mapping class group $MCG(S^3, L)$ of the pair S^3, L. Our symmetry groups are the images of the traditional symmetry groups of links under the natural homomorphism from $MCG(S^3, L)$ onto $MCG(S^3) \times MCG(L)$.

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