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**Daniel S Silver\*** ([silver@jaguar1.usouthal.edu](mailto:silver@jaguar1.usouthal.edu)), Dept of Mathematics and Statistics, ILB 325, University of South Alabama, Mobile, AL 36608, and **Susan G Williams** ([swilliam@jaguar1.usouthal.edu](mailto:swilliam@jaguar1.usouthal.edu)), Dept of Mathematics and Statistics, ILB 325, University of South Alabama, Mobile, AL 36688. *Twisted Alexander Polynomials and Representation Shifts*. Preliminary report.

Twisted Alexander knot polynomials generalize the classical Alexander polynomial by incorporating information from the linear representations of the knot group. We explain how one can use a larger class of representations, representations of the commutator subgroup that are periodic in a natural sense. Of particular interest are finite-image permutation representations. We present results and conjectures about the zeros of the polynomials that arise. (Received March 29, 2010)