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Patrick Bahls* (pbahls@unca.edu), Department of Mathematics, UNCA, CPO #2350, One University Heights, Asheville, NC 28804, and **Tyler Smith**. *Rewriting systems and orderings on Artin monoids*.

A method due to S. Burckel makes use of a correspondence between rooted, labeled trees and elements of a braid monoid in order to define a linear order on such a monoid, which order is compatible with the monoid's multiplication. One may consider whether a similar construction allows one to define an order on more complicated monoids. We will show that one can in fact use an analogous method to define a compatible linear order on certain large-type Artin monoids, but that the method breaks down for groups of “non-Artin” type. (Received August 29, 2005)