1131-05-212 **Angela Berardinelli*** (aberardinelli@mercyhurst.edu). *Reduced words and reduced word graphs for elements of complex reflection groups.* Preliminary report.

Reduced words have been an important tool in studying the representation theory and combinatorics of Coxeter groups for at least the last 20-25 years. This tool does not fully translate to complex reflection groups, however. For example, Coxeter groups famously have a unique element of maximal length, but complex reflection groups do not. In this talk, we will discuss some useful properties of reduced words that do extend to complex reflection groups, including reduced word graphs, fully commutative elements, maximal length elements, and elements with a unique reduced word. We will also explore algorithms for generating the list of reduced words for a given element in a reflection group and for generating the corresponding graph whose vertex set is the set of reduced words for the element and whose edges represent the commuting and braid relations of the group. (Received July 14, 2017)