1116-54-2007 Steven R Beres* (sberes@zagmail.gonzaga.edu). An Introduction to Klein Links and Their Relation to Torus Links.

Klein links form a classification of links which may be embedded across the surface of a Klein bottle. That is, a Klein link is a set of interlocking mathematical knots which may be drawn across the surface of a Klein bottle without intersection. This particular classification of links has not yet been well studied by the mathematical community. Initially, our interest in these links stemmed from the relation between Klein knots and torus knots. It is a fairly well-known fact that all Klein knots are torus knots. The initial goal of our research had been to explore the nature of this relationship through the use of elementary methods. These investigations led us to extend our inquiries to Klein links. After studying these links for some time, we discovered that unlike Klein knots it is not the case that all Klein links are torus links. In this presentation, we will briefly discuss the major results of our research on these links. The techniques that we used in our study of these links (such as linking number) were purposefully elementary, so this presentation does not require any background in topology or knot theory. Topics will range from basic construction of the links on the Klein bottle to specific sub-classifications of Klein links which are not torus links. (Received September 21, 2015)