

1114-57-126

Elaina K Aceves* (ekaceves@mail.fresnostate.edu). *From Knot Theory to Pseudographs*. Preliminary report.

A new field of research has emerged in knot theory that considers knot diagrams with missing information at the crossings. That is, the observer does not know which strand lies over or under the other at a crossing, and this new type of crossing is known as a precrossing. Pseudodiagrams are knot diagrams with precrossings and we look at pseudodiagrams to distinguish between pseudoknots. The trivializing and knotting number of a pseudodiagram can be used to distinguish between pseudoknots. The trivializing number (and knotting number respectively) of a pseudodiagram is the number of precrossings that need to be changed to a crossing to represent the unknot (a nontrivial knot) regardless of how the remaining precrossings are resolved. Spatial graph theory is a subfield of knot theory that deals with embeddings of graphs in three-dimensional space. This talk will be focused on the trivializing and knotting number for certain spatial pseudograph diagrams, beginning with bouquet pseudographs, based on the number of precrossings and the placement of the precrossings in the spatial pseudograph diagram. (Received August 19, 2015)