

INTRINSIC PROPERTIES OF GRAPHS EMBEDDED IN \mathbb{R}^3

ERICA FLAPAN

Knot theory is the study of embeddings of simple closed curves in \mathbb{R}^3 . A natural extension of knot theory is the study of embeddings of graphs in \mathbb{R}^3 . However, in contrast with knots, the structure of a graph can be complex, and this can affect all of its embeddings. If every embedding of a graph has a particular property, then we say that property is *intrinsic* to the graph. For example, a graph is said to be *intrinsically knotted* if every embedding of the graph in \mathbb{R}^3 contains a knot. In this talk I will introduce intrinsic knotting and other intrinsic properties of graphs, and present some open problems in the area.

