

Abstract

A graph can be embedded in various spaces. This paper examines S^1 embeddings of graphs. Just as links can be defined in spatial embeddings of graphs, links can be defined in S^1 embeddings. Because linking properties are preserved under vertex expansion, there exists a finite complete set of minor minimal graphs such that every S^1 embedding contains a non-split 3-link. This paper presents a list of minor minimal intrinsically S^1 3-linked graphs, along with methods used to find and verify the list, in hopes of obtaining the complete minor minimal set. Other aspects of S^1 embeddings are also examined.