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Author(s): Daniel Hwang

Mentors: Laura Monroe

Title: Edge-Disjoint Spanning Trees on Star-Product Networks

Abstract: Network topologies, or the design of networks, can be represented using the mathematical structure of graphs. In order to construct larger networks from two smaller networks, we can take their graph product. More specifically, we can take their star product, which is a generalization of the Cartesian product, to form star-product networks. In this presentation, we give a brief description of star-product networks and their significance when it comes to network design. Moreover, we also introduce the concept of edge-disjoint spanning trees on an arbitrary graph and our project's goal of maximizing the number of edge-disjoint spanning trees on star-product networks. We will also present a poster describing our constructions of edge-disjoint spanning trees in more detail.