

Analyzing Connectivity in Collective Transportation Line Networks by means of Hypergraphs

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The study of complex networks has been found to be useful for representing, characterizing, and modeling the structure and dynamics of complex systems. Systems such as social, biochemical, communications, infrastructure or transportation networks share some properties regarding their behavior and structure.

In this talk we show how hypergraphs and some measures related to them can help in extracting information about Collective Transportation Line Networks. It will be also proved that these measures satisfy certain properties that validate their use to compare the connectivity of different networks.

(joint work with Alicia De-los-Santos, Eva Barrena and Federico Perea)