

Lines in quasi-metric spaces

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In this talk we will introduce the notion of line in quasi-metric spaces as a generalization of the known notion of line in metric spaces. In our case, the line defined by an ordered pair of vertices (u, v) is the set of all vertices w such u, v and w belong to a shortest directed path containing a shortest directed path from u to v .

We study the number of different lines in quasi-metric spaces induced by directed graphs. In particular, we are interested in tournaments and some possible generalizations of complete graphs for the directed case.

This is a joint work with G. Araujo-Pardo and M. Matamala.