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Exploring Multigraph Pairs of IK_n

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Oral Presentation O8.3

EXPLORING MULTIGRAPH PAIRS OF lK_n

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This research lies within the fields of Combinatorics and Graph Theory. The purpose of this project is to determine and explore multigraph pairs of lK_n , the complete graph on n vertices in which every edge is repeated l times. A multigraph pair is a pair of subgraphs of lK_n which can be paired together to make lK_n , and that satisfy certain other properties. In this talk, we derive results from patterns and general results for larger values to contribute to our overall understanding of graph pairs and graphs in general. We also show how this particular work can be related to other areas of mathematics.