

*Department of Mathematics,
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Food For Thought Seminar

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The edge reconstruction of graphs

Abstract:

In 1942 Kelly conjectured that any graph having at least 3 vertices is uniquely determined by the multiset of all its subgraphs obtained by deleting a vertex and all edges adjacent to it. In 1964 Harary conjectured analogously that any graph having at least 4 edges is uniquely determined by all its subgraphs obtained by deleting a single edge, which is known as the edge reconstruction conjecture. As of today, both conjectures are still open.

In the talk I will discuss some of the classical results about the conjectures and some evidence in favor of them. Also I will explicitly show that the edge reconstruction conjecture holds for a specific type of graphs.

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12:00 PM

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