

Combinatorics Seminar

Tuesday, April 25, 2017

4:00 pm in Hume 331

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New Results on the Integral Sum Graphs

ABSTRACT

The concept of the integral sum graph introduced by F. Harary in 1994 has a lot of applications in Computer Science. A graph G is called to be an integral sum graph if its vertices can be given a labeling f with distinct integers so that for any distinct vertices u and v of G , uv is an edge of G if and only if $f(u) + f(v) = f(w)$ for some vertex w of G . We will show some new results on sum graph and integral sum graph related to conjectures posed by Harary. We prove that there exists a connected integral sum graph with any minimum degree and give an upper bound for the relation between the number of vertices and number of edges of a connected integral sum graph with no saturated vertex, that is a vertex adjacent to all other vertices of the graph. This joint work with C. Li and B. Wei.