

國立交通大學應用數學系

離散數學演講公告

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講題：An Insight into Graph labeling problems: Theory and Applications

時間：103 年 6 月 10 日(星期二) 下午 1:20 –3:10

地點：(光復校區) 科學一館 213 室

Abstract

Graph labelings, where the vertices and edges are assigned, real values or subsets of a set subject to certain conditions, have often been motivated by their utility to various applied fields and their intrinsic mathematical interest (logico – mathematical). Graph labelings were first introduced in sixties. In the intervening years, dozens of graph labeling techniques have been studied in over 1000 papers. An enormous body of literature has grown around the subject, especially in the last fifty years or so, and is still getting embellished due to increasing number of application driven concepts.

- Labeled graphs are becoming an increasingly useful family of Mathematical Models for a broad range of applications. While the qualitative labelings of graph elements have inspired research in diverse fields of human enquiry such as Conflict resolution in social psychology, electrical circuit theory and energy crisis etc., quantitative labelings of graphs have led to quite intricate fields of application such as Coding Theory problems, including the design of good Radar location codes, Missile guidance codes etc. Labeled graphs have also been applied, in determining ambiguities in X-Ray Crystallographic analysis, to Design Communication Network addressing Systems, in determining Optimal Circuit Layouts and in Radio-Astronomy., Characterization of certain algebraic structures, Construction of polygons with different sides but same internal angle, Solution of linear congruences, etc.

In this talk we discuss about theory and applications of few types of labelings in detail.

敬請公告 歡迎參加

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