國 立 清 華 大 學 數 學 系 學 術 演 講 NTHU MATH Colloquium

- 講題 Prime Sum Graphs and Prime Difference Graphs
- 講者 陳宏賓教授 (國立中興大學 / UniMath主編)
- 時間 2019.12.30 (Mon.) 16:00 17:00
- 地點 4F Lecture Room B, General Building III

茶會 15:30, R707

Abstract

A graph G defined on [n], the set of positive integers from 1 to n, is a prime sum graph provided that $\{a, b\}$ is an edge of G whenever the sum a + b is a prime. The prime difference graph will be defined similarly whenever |a - b| is a prime. Filz in 1982 posed the conjecture that the prime sum graph is Hamiltonian provided n is an even integer larger than 3, i.e., integers 1, 2, ..., 2n can be arranged in a circle such that the sum of every adjacent pairs is a prime number.

In this talk, I shall report recent progress towards Filz's conjecture and some analogue results on prime difference graphs, which are defined similarly by replacing a+b with |a-b| as the prime edge condition.