Colloquium

陳宏賓 教授

Assistant Professor

Hong-Bin Chen

應用數學系, 國立中興大學

台灣**UniMath**主編

108年03月20日(三) 14:30 應用數學系多媒體教室（理408）

A Consequence of Bertrand's Postulate and Beyond

Abstract: Bertrand's postulate assures that for any positive integer $n > 3$ there exists a prime p between n and $2n$. A consequence of Bertrand's postulate states that the set of integers $\{1,2,...,2n\}$ can be partitioned into pairs so that the sum of each pair is a prime number for any positive integer n. In this talk, I will introduce its proof and a stronger conjecture by Filz in 1982 that the set of integers $\{1,2,...,2n\}$ can be rearranged into a cycle so that the sum of any two adjacent integers is a prime number. With a fundamental result in graph theory and a recent breakthrough on the twin prime conjecture, we prove that Filz's conjecture is true for infinitely many cases. This talk is based on a joint work with Hung-Lin Fu and Jun-Yi Guo.

Research Interest:

The mathematical tools used in my research works are various, including algorithm design and complexity analysis, discrete mathematics, graph theory and combinatorics. My research interests span the optimization and algorithmic mathematics underpinnings of group testing, optimal partitions, graph partitions and extremal set theory.

UniMath (You Need Math) 是一個online數學媒體及線上平台，發表數學相關的科普文章及影音，使數學用更柔軟的姿態走入群眾，提升數學素養。
相關網址：https://sites.google.com/a/g2.nctu.edu.tw/unimath/