

# 國立交通大學應用數學系

## 學術演講公告

主講人：Dr. Peng-Jie Wong (NCTS)

講題：Cyclicity of CM Elliptic Curves Modulo  $p$  in  
Short Intervals

時間：110年3月9日(星期二) 下午 14:00 –15:00

地點：(光復校區) 科學一館 223 室

茶會：當天下午 13:30 (科學一館 205 室)

Abstract.

Let  $E$  be a CM elliptic curve defined over the rational numbers. In light of the Lang-Trotter conjecture, there is a question asking for an asymptotic formula for the number of primes  $p < x$  for which the reduction modulo  $p$  of  $E$  is cyclic. This question can be seen as an "elliptic" analogue of the prime number theorem and has been studied by many mathematicians.

In this talk, we will start by reviewing the prime number theorem and some properties of elliptic curves. After reviewing, we will discuss the previous work and a short interval variant of the above-mentioned "cyclicity problem", which presents a generalisation of Huxley's work on the prime number theorem in short intervals. If time allows, we will further discuss some ingredients of the proof.

敬請公告 歡迎參加

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