

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

Qualifying Research Seminar

Representations of integers as sums of four polygonal numbers of almost prime length

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(Supervisor: Professor Benjamin KANE)

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Rm 210, Run Run Shaw Building, HKU

Abstract

Representations of integers as sums of polygonal numbers have been studied throughout history, including Lagrange and his four square theorem. Recently, this has been studied by J. Brudern and E. Fouvry, S. Banerjee, B.Kane and D. Kim to represent integers by sums of polygonal numbers, where the parameter are restricted to have at most 34 and 6361 prime factors respectively. In this talk, we will discuss the case of sums of four polygonal numbers with integral coefficients and apply sieving techniques to address the problem.

All are welcome