HKU Algebra and Number Theory Seminar

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Run Run Shaw Building, room 210

Title: The size of the relative class number of a prime cyclotomic field

Abstract: A conjecture of Kummer predicts the asymptotic growth of the relative class number of prime cyclotomic fields. The ratio of this class number and the simple asymptotic that Kummer predicted for it, is now called Kummer's ratio. We substantially improve the existing bounds on this ratio in three scenarios: without Siegel zero, with Siegel zero, and assuming the Riemann Hypothesis for the Dirichlet L-series attached to odd characters only.
  (Joint work with Alessandro Languasco, Pieter Moree, Alisa Sedunova, and Sumaia Saad Eddin)