

abstract

Analysis Seminar
Topic:

Speaker:

Date:

Time/Room:

One of the principal questions about L-functions is the size of their critical values. In this talk, we will present a new subconvexity bound for the central value of a Dirichlet L-function of a character to a prime power modulus, which breaks a long-standing barrier known as the Weyl exponent. We obtain our results by developing a new general method to estimate short exponential sums involving p-adically analytic fluctuations, which can be naturally seen as a p-adic analogue of the method of exponent pairs. We will present the main results of this method and the key points in its development, and discuss the structural relationship between the p-adic analysis and the depth aspect.