# abstract

IAS/PU NUMBER THEORY
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

In 1957 Erdos asked what is the smallest maximum modulus of a trigonometric polynomial of degree n all whose coefficients have modulus 1. He thought that there should be a c>0 such that this max modulus is larger than (1+c)sqrt(n).In 1966 Littlewood conjectured the opposite and 1980 Kahane proved this in a strong form. He gave a probablistic construction of such polynomials with essentially constant modulus sqrt(n).In this talk we will give a new explicit construction of such polynomials with an improved remainder for the fluctuation about sqrt(n).This is joint work with Jean Bourgain.