Exposé court

12 ***Diophantine approximation and the weighted products of partial quotients in continued fractions***

Bakhtawar, Ayreena (Scuola Normale Superiore di Pisa)

Dirichlet's theorem (1842) is a fundamental result in Diophantine approximation that gives an optimal approximation rate of any irrational number. Recently, it has been shown that improvements to Dirichlet's theorem are concerned with the growth of the product of consecutive partial quotients in continued fractions. In this talk, I will describe metrical results for the sets associated with the product of an arbitrary block of consecutive partial quotients raised to different powers. This is a joint work with Mumtaz Hussain, Dmitry Kleinbock and Bao-Wei Wang.