

Speaker: Oleg Karpenkov

Title: Geometry of continued fractions

Abstract: In this talk we introduce a geometrical model of continued fractions and discuss its applications and generalisations. In particular we show how to compute the values of quadratic forms (Perron Identity for Markov spectrum) in terms of lattice constructions arising from continued fractions. Secondly we will discuss a remarkable formula on the continued fractions of angles in an integer triangle. Finally we say a few words about multidimensional generalisations of geometric continued fractions.

The material of the talk does not assume any advanced maths background.