

The distribution of reduced quadratic irrationals arising from continued fraction expansions

Maira Siskaki

University of Illinois Urbana-Champaign

Abstract:

It is known that the reduced quadratic irrationals arising from regular continued fraction expansions are uniformly distributed when ordered by their length with respect to the Gauss measure. In this talk, I will describe a number theoretical approach developed by Kallies, Ozluk, Peter and Snyder, and then by Boca, that gives the error in the asymptotic behavior of this distribution. Moreover, I will present the respective result for the distribution of reduced quadratic irrationals that arise from even (joint work with F. Boca) and odd continued fractions.