
BRAD RODGERS, Queen's University

The distribution of sums of two squares in short intervals

In this talk I will discuss the distribution in short intervals of integers representable as sums of two squares. For sufficiently short intervals this distribution is (conjecturally) governed by a Poisson distribution, but I will explain why one should expect in intervals which are just a little longer a connection to what are known as z-measures. These were first investigated in the context of harmonic analysis on the infinite symmetric group and I hope to also give a short introduction to them. Results can be proved in a function field setting. This is joint work with Ofir Gorodetsky.