

1131-37-80

Alan Haynes* (haynes@math.uh.edu), **Michael Kelly** and **Henna Koivusalo**. *Constructing bounded remainder sets of all allowable volumes in any dimension.*

In this talk we will discuss the problem of constructing bounded remainder sets for rotations of a d -dimensional torus. This is an important topic which has been studied for nearly 100 years, and, until recently, was only adequately understood in dimensions 1 and 2. However, in just the last few years, work by several authors has led to constructions of bounded remainder sets for irrational rotations in any dimension, of all allowable volumes. In this talk we will explain, in retrospect, how many of these results can easily be obtained from a simple geometric argument which was previously employed by Duneau and Oguey in the study of deformation properties of mathematical models for quasicrystals. (Received July 05, 2017)