



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
Geometric Functional Analysis and Probability Seminar

Room 261 ,Ziskind Building
on Thursday, Dec 18, 2014
at 10:30

PLEASE NOTE UNUSUAL TIME

Alexander Fish
University of Sydney

Plunnecke inequalities in countable abelian groups - general case

Abstract:

Plunnecke inequalities for sumsets of finite sets in abelian groups are extended to measure - preserving systems (mps). For a set A in a group, and a set B of positive measure in mps, we estimate the measure of the union of translations along the set A of B . To prove the new inequalities we extend the graph-theoretic method recently developed by Petridis to "measure graphs". As an application, through Furstenberg's correspondence principle, we obtain the new Plunnecke type inequalities for lower and upper Banach density in countable abelian groups. Based on joint works with M. Bjorklund, Chalmers, and with Kamil Bulinski, Sydne