Department of Mathematics, BGU

Combinatorics Seminar

On *Monday, March ,12 2018*

At *14:10 − 15:10*

In *101-*

Gabor Damasdi (HUJI)

will talk about

Conical partitions for point sets

Abstract: Mass partition theorems like the Ham-Sandwich theorem have been extensively studied in recent decades. Conical partitions have been mainly considered in the planar case, but some higher dimensional results have been obtained by Vrecica and Zivaljevic and by Makeev. The proof of mass partition theorems usually follows the configuration space/test map procedure or some degree theoretic method, both of which heavily rely on topological results. This is especially true for results in higher dimensions, where our combinatorial tools are limited. We show a completely combinatorial proof for a discrete version of a theorem of Vrecica and Zivaljevic concerning conical partitions, and we show an equivalent result on the number of regions in a conical decomposition.