Department of Mathematics, BGU

Operator Algebras

On *Tuesday, December ,27 2016*

At *16:00 – 17:00*

In *Math 101-*

Ilan Hirshberg (BGU)

will talk about

Rokhlin dimension for flows

Abstract: By a flow I mean a one-parameter point-norm continuous group of automorphisms of a C*-algebra. In ,1996 Kishimoto introduced a concept of the Rokhlin property for flows, which is analogous to the Rokhlin property for a single automorphism. I'll discuss a generalization of this, Rokhlin dimension. The results parallel to a great extent results previously obtained in the discrete settings for actions of Z, Z^n, finite groups and certain residually finite groups.

The main results are that crossed products by flows with finite Rokhlin dimension preserve finite nuclear dimension and D-absorption (the latter with an additional technical assumption), crossed products by flows with finite Rokhlin dimension are stable, and any free flow on a commutative C*-algebra with a finite dimensional spectrum has finite Rokhlin dimension. In particular, this shows that crossed products of commutative algebras with finite dimensional spectrum by minimal flows fall under the Elliott's classfiication program, provided the have non-zero projections (which follows, e.g., fi the flow has a transversal).

This is joint work with Szabo, Winter and Wu, to appear in Comm. Math. Phys.