QINGYUN WANG, University of Toronto
Regularity property and actions with the weak tracial Rokhlin property

Tracial Rokhlin property was introduced by Chris Phillips to study the structure of the crossed product of actions on C*-algebras. It is more flexible than the Rokhlin property, and still yield important structural theorems. In this talk, we will generalize the definition of tracial Rokhlin property to actions of amenable groups and to C*-algebras possibly without projection, which we shall call the weak tracial Rokhlin property. We will show that, the crossed product of an action with the weak tracial Rokhlin property preserves the following classes: (1). tracially $\mathcal{Z}$-stable C*-algebras. (2). C*-algebra whose Cuntz semigroup is almost unperforated and almost divisible. If time permits, we will also talk about some interesting examples. This is a joint work with Chris Phillips and Joav Oravitz.