

המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום שלישי, 6 בנובמבר, 2018

בשעה 14:30 – 15:30

ב-101 Math

ההרצאה

Which groups have bounded harmonic functions?

תינתן על-ידי

(BGU) Hartman Yair

תקציר: Bounded harmonic functions on groups are closely related to random walks on groups. It has been known for a long time that all abelian groups, and more generally, groups that are virtually nilpotent (Choquet-Deny groups), support non-trivial bounded harmonic functions. Equivalently, their support cannot be trivial. I will present recent results on this boundary Poisson groups, Choquet-Deny countable discrete groups, and their classification. We show that groups generated finitely are virtually nilpotent (Kaimanovich-Vershik conjecture) and prove the Surprisingly, Choquet-Deny groups are not nilpotent, but are virtually nilpotent. The key property of these groups is the rate of growth of the conjugacy classes (ICC). This work is joint with Omer Tamuz, Vahidi Pooya, and Ferdowsi.