

Department of Mathematics, BGU

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## Colloquium

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*On Tuesday, November 24 2015*

*At 14:30 – 15:30*

*In Math 101-*

Brandon Seward (Hebrew U. and Courant Institute of  
Mathematical Sciences)

will talk about

### **Entropy for actions of non-amenable groups**

Abstract: Within the field of dynamics, entropy is a real number which measures the amount of chaos or complexity in a dynamical system. Entropy was first introduced for actions of the integers by Kolmogorov in 1958 and it led to huge advances in the field. During the 1970's and 80's entropy theory was largely extended to actions of amenable groups (such as abelian groups and solvable groups). In 2008 Lewis Bowen made a dramatic breakthrough by extending the notion of entropy to actions of sofic groups (such as linear groups and free groups). A new chapter in entropy theory is now unfolding. In this talk, I will discuss some of the history of classical entropy theory and then discuss some recent breakthroughs.