Department of Mathematics, BGU

Probability and ergodic theory (PET)

On *Tuesday, June ,23 2015*

At *10:50 − 12:00*

In *Math 101-*

Tal Malinovitch (BGU)

will talk about

Multi-type time continuous Markovian branching process in sub critical systems

Abstract: The Stochastic Transport Equation describes the number distribution of a population governed by a birth, death and branching event rates, often referred to as a "Continuous time Markovian branching process". Continuous time branching processes are a common model of the neutron population in a fissionable system. In particular, the stochastic transport equation is often used in the context of the so called Feynman - alpha method, here the first two moments are used to evaluate the decay rate of the system. In the study, we have extended the traditional model into a multi type setting. In particular, we have demonstrated that the classic results have a very elegant Matricidal representation, fi the proper formalism is used.