

October 28th, 2015

KAP 414

3:30 P.M. – 4:30 P.M.

Professor Nikolai Krylov

(University of Minnesota)

**“On the Independence of the Value Function
for Stochastic Differential Games
of the Probability Space”**

Abstract: We show that the value function in a stochastic differential game does not change if we keep the same space (Ω, \mathcal{F}) but introduce probability measures by means of Girsanov's transformation $\{\text{em depending}\}$ on the policies of the players. We also show that the value function does not change if we allow the driving Wiener processes to depend on the policies of the players. Finally, we show that the value function does not change if we perform a random time change with the rate depending on the policies of the players.