Statistics Seminar

Department of Mathematical Sciences

DATE:	Thursday, April 4, 2019
TIME:	1:15pm – 2:15pm
LOCATION:	WH 100E
SPEAKER:	Kexuan Li, Binghamton University
TITLE:	On the Convergence Rate of the Quasi- to Stationary Distribution for the Shiryaev-Roberts Diffusion

Abstract

For the classical Shiryaev–Roberts martingale diffusion considered on the interval $[0, A]$, where $A > 0$ is a given absorbing boundary, it is shown that the rate of convergence of the diffusion's quasi-stationary cumulative distribution function (cdf), $Q_A(x)$, to its stationary cdf, $H(x)$, as A goes to infinity, is no worse than $O(\log(A)/A)$, uniformly for any $x\ge0$.