1151-62-219   **Kexuan Li*** (`kli77@binghamton.edu`), 4400 Vestal Pkwy E, MATH, Binghamton, NY 13902. *On the Convergence Rate of the Quasi- to Stationary Distribution for the Shiryaev-Roberts Diffusion.*

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 $A \to +\infty$, is no worse than $O(\log(A)/A)$, uniformly in $x \geq 0$. The result is established explicitly, by constructing new tight lower- and upper-bounds for $Q_A(x)$ using certain latest monotonicity properties of the modified Bessel K function involved in the exact closed-form formula for $Q_A(x)$ recently obtained by Polunchenko (2017). (Received August 19, 2019)