



SCMS Seminar

A CONDITIONED LOCAL LIMIT THEOREM VIA HEAT KERNEL APPROXIMATION

Speaker: Ion Grama
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Time: Friday, November 14th; 11:00-12:00

Venue: Room 102, SCMS

Abstract:

We study a real-valued random walk with centered increments and a finite $(2+\delta)$ -moment. Using a previously established approximation of the Gaussian heat kernel for persistence probabilities, we prove a new local limit theorem conditioned by the exit time from the half-line. This result unifies and generalizes existing theorems and provides uniform asymptotics with respect to both the starting and ending points.