Weak Convergence Theorem For A Semi-Markovian Random Walk With Delay And Pareto Distributed Interference Of Chance

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Abstract

In this study, a semi-Markovian random walk with delay and a discrete interference of chance $(X(t))$ is constructed. The weak convergence theorem is proved for the ergodic distribution of the process $X(t)$ and the limit form of the ergodic distribution is found, when the random variables $\{\zeta_n\}, n \geq 0$ have Pareto distribution with parameters (α,λ) where the random variables ζ_n describe the discrete interference of chance.

References

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