Dokuz Eylül University Faculty of Science
Department of Mathematics

SEMINAR

Limit Theorems for One Class of Ergodic Markov Chains

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ABSTRACT

We begin with the intuitive background on Markov Chains, and then talk about the necessity of positive recurrence assumption of a Markov Chain for the existence of Central Limit Theorem. Then we introduce additive functionals of countable Markov Chains and talk about two methods, namely, Döblin method and Martingale approach, to prove the Central Limit Theorem for the ergodic Loop Markov Chains.

Lastly, we introduce three Loop Markov Chain models, and construct the Central Limit Theorem for them.

References

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Date & Time: 25 December 2015, Friday at 14:00

Seminar Room: B206

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