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LARGE DEVIATIONS FOR CLUSTERED OBSERVATIONS

MIGUEL ABADI *
USP

Abstract

Large deviations for frequencies of observables is a classical subject which come to complement the ERgodic Theory and the Central Limit Theorem in the statistical analysis of Poincaré Recurrence Theory in Dynamical Systems and Stochastic Processes. The independent case were treated in the seminal papers of Bernstein, chernoff and Hoeffding. Among dependent systems, Martingale and negative correlated also appear in the litterature. Here we considered dependent systems and observables that tend to appear in clusters rather than isolately, forming a cloud of consecutive observations. This means that the observations are positive correlated with probabi;ity of repetition much larger than the stationary. We illustrate with some examples.

References

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*e-mail: leugim@ime.usp.br