

UNIFORM MODERATE DEVIATIONS OF FUNCTIONAL EMPIRICAL
PROCESSES OF MARKOV CHAINS

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Abstract: We obtain uniform (in time) moderate deviations for the functional empirical process of a general state space Markov chain under the geometric ergodicity assumption, and a regularity condition for the initial measure, by the regeneration split chain method. Our results deal both with bounded and unbounded class of functions.

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Key words and phrases: Moderate deviations; Markov chains; geometric ergodicity; regeneration split chain method; functional empirical process.

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