LIMIT THEOREMS FOR STOPPED FUNCTIONALS OF MARKOV RENEWAL PROCESSES

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Abstract. Some results for stopped random walks are extended to the Markov renewal setup where the random walk is driven by a Harris recurrent Markov chain. Some interesting applications are given; for example, a generalization of the alternating renewal process.

Key words and phrases: Markov renewal process, semi-Markov process, Harris recurrent, stopped sums, m-dependence, Anscombe's theorem, law of large numbers, central limit theorem, law of the iterated logarithm.