

Limit Theorems for the Elephant Random Walk

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In this work we will study the Elephant Random Walk introduced by Schutz and Trimper (2004), a discrete time non-Markovian stochastic process with unlimited range memory that exhibits phase transition. Our objective is to show recent results on the literature on the subject. First, we demonstrate the almost sure convergence for the diffusive and critical regimes of the model. Moreover, we also present the proof of the Central Limit Theorem for both regimes. For the supercritical regime we will demonstrate the convergence of the Elephant Random Walk to a non-normal random variable.