On a metastable loss network

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Abstract

I will discuss large deviation properties of a mean field thermodynamic limit of a multiclass loss network. The network may have several stable equilibria. The invariant measure of the network process is shown to obey a large deviation principle. The network is metastable in that it spends exponentially long periods of time in the neighbourhoods of stable equilibria. As a case study, a two-class network with two stable and one unstable equilibria is examined.