

LARGE DEVIATIONS ON LINEAR SPACES

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Abstract: We discuss a method, which we call the *expansion method*, for proving large deviation principles and bounds. The method is applicable on general topological spaces but our main application is to prove a large deviation result for a sequence of random vectors taking values in a real locally convex linear space. As applications of this result, two general Cramér-type theorems are given. One comes directly from the main result; the proof of the other involves truncation and a continuity property of convex conjugation.

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