

NEW VERSION OF OPTIMAL STOPPING PROBLEM

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Abstract

This dissertation contains several new results concerning Moser-type optimal stopping problems. In the simplest case we consider sequence of independent uniformly distributed points X_1, X_2, \dots, X_n on the compact Riemannian manifold M and give algorithm for the calculation of $S_n = \max_{\tau \leq n} E[G(X_\tau)]$ where G is a smooth function on M and τ is a random optimal stopping time. Description of the optimal τ depends on the structure of G near points of maximum. For different assumptions on this structure we calculate asymptotics of S_n .