PROBABILITY
AND
MATHEMATICAL STATISTICS
Vol. 3, Fasc. 2 (1984), pp. 143–154

FREE BOUNDARY PROBLEM FOR CONTROLLED STOCHASTIC DIFFERENTIAL EQUATIONS

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Abstract: This article is concerned with an optimal stopping problem of controlled stochastic differential equations. The value function up to t provides a unique solution of the free boundary problem of parabolic type (Theorem 1, a little variant of [6]). On the other hand, the value function provides a non-linear semigroup (Proposition 3) and the Cauchy problem of this generator will be considered (corollaries and remarks on uniqueness).

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -;

Key words and phrases: -

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