PROBABILITY
AND
MATHEMATICAL STATISTICS
Vol. 10, Fasc. 2 (1989), pp. 223–245

ON SOME STOPPING AND IMPULSIVE CONTROL PROBLEMS WITH A GENERAL DISCOUNT RATE CRITERIA

Łukasz Stettner

Abstract: Optimal stopping and impulsive control problems are studied with a general, depending on the state of the process discount rate g. The criteria considered and results obtained are closely related to the type $R(g)$ of a discounted semigroup (T_t^g). For the case where $R(g) < 0$, the continuity of value functions and the form of optimal stopping and impulse strategies corresponding to the ordinary discounted functional are shown. The case $R(g) = 0$ is studied under the assumption of uniform ergodicity and existence of a bounded positive eigenfunction for (T_t^g), and then the ergodic stopping and impulsive control with long run average cost problems are solved.

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

Key words and phrases: -

THE FULL TEXT IS AVAILABLE HERE