PROBABILITY
AND
MATHEMATICAL STATISTICS
Vol. 32, Fasc. 1 (2012), pp. 25–39

# ASYMPTOTIC RESULTS FOR EXIT PROBABILITIES OF STOCHASTIC PROCESSES GOVERNED BY AN INTEGRAL TYPE RATE FUNCTION

**Mario Abundo**
**Claudio Macci**
**Gabriele Stabile**

*Abstract:* In this paper we present asymptotic results for exit probabilities of stochastic processes in the fashion of large deviations. The main result concerns stochastic processes which satisfy the large deviation principle with an integral type rate function. We also present results for exit probabilities of linear diffusions and particular growth processes, and we give two examples.

**2000 AMS Mathematics Subject Classification:** Primary: 60F10, 60J60; Secondary: 91B70.

**Keywords and phrases:** Large deviations, Freidlin–Wentzell theory, most likely path.

THE FULL TEXT IS AVAILABLE HERE