

ASYMPTOTIC EXPANSIONS OF POSTERIOR EXPECTATIONS, DISTRIBUTIONS AND DENSITIES FOR STOCHASTIC PROCESSES

MARTIN CROWDER

Department of Mathematics, University of Surrey, Guildford Surrey GU2 5XH, U.K.

(Received March 30, 1987; revised September 28, 1987)

Abstract. Asymptotic expansions are derived for Bayesian posterior expectations, distribution functions and density functions. The observations constitute a general stochastic process in discrete or continuous time.

Key words and phrases: Asymptotic expansions, Bayesian approach, inference for stochastic processes, asymptotic posterior normality.