

ON EMPIRICAL BAYES WITH SEQUENTIAL COMPONENT

DENNIS C. GILLILAND¹ AND ROHANA KARUNAMUNI²

¹*Department of Statistics and Probability, Michigan State University, East Lansing, Michigan 48824, U.S.A.*

²*Department of Statistics and Applied Probability, University of Alberta, Edmonton, Alberta, Canada T6G 2G1*

(Received January 28, 1986; revised July 4, 1986)

Abstract. Laippala (1979, *Scand. J. Statist.*, **6**, 113–118, correction note, **7**, 105; 1985, *Ann. Inst. Statist. Math.*, **37**, 315–327) has defined a concept within the empirical Bayes framework that he calls “floating optimal sample size”. We examine this concept and show that it is one of many possibilities resulting from restricting the class of component sampling procedures in the empirical Bayes decision problem with a sequential component. All ideas are illustrated with the finite state component.

Key words and phrases: Empirical Bayes, sequential component, asymptotic optimality.