Ann. Inst. Statist. Math. Vol. 41, No. 4, 661-669 (1989)

SOME PROPERTIES OF RECORD VALUES COMING FROM THE GEOMETRIC DISTRIBUTION

A. C. DALLAS

Section of Statistics, Department of Mathematics, Athens University, Panepistemiopolis, Athens 157 81, Greece

(Received January 29, 1987; revised October 20, 1988)

Abstract. The independence between spacings of record values and of individual record values is well known when the records come from a geometric distribution. Here we examine the form a function of two record values must have if we require independence from a lower record value. Also similar questions are examined in relation to conditional expectation and conditional variance.

Key words and phrases: Geometric distribution, record values, independence, conditional expectation, conditional variance, power series.