Ann. Inst. Statist. Math. Vol. 41, No. 3, 415-427 (1989)

ASYMPTOTIC NORMALITY OF DOUBLE-INDEXED LINEAR PERMUTATION STATISTICS

DINH TUAN PHAM¹, JOACHIM MÖCKS² AND LOTHAR SROKA²

 ¹Laboratory TIM 3, CNRS, IMAG. University of Grenoble, B.P. 53X, 38041 Grenoble Cedex, France
²Institut für Angewandte Mathematik, Universität Heidelberg, Im Neuenheimer Feld 294, 6900 Heidelberg, FRG

(Received May 9, 1987; revised October 7, 1988)

Abstract. The paper provides sufficient conditions for the asymptotic normality of statistics of the form $\sum a_{ij}b_{R,R_j}$, where a_{ij} and b_{ij} are real numbers and R_i is a random permutation.

Key words and phrases: Asymptotic normality, linear permutation statistic.