E-OPTIMALITY OF SOME ROW AND COLUMN DESIGNS

Maria Kozłowska and Ryszard Walkowiak

*Department of Mathematical and Statistical Methods, Academy of Agriculture in Poznan,
Wojska Polskiego 28, 60-637 Poznan, Poland*

Abstract. In this paper we consider experimental settings where v treatments are being tested in b_1 rows and b_2 columns of sizes k_{1i} and k_{2j}, respectively, $i = 1, 2, \ldots, b_1$, $j = 1, 2, \ldots, b_2$. Some sufficient conditions for designs to be E-optimal in these classes are derived and some necessary and sufficient conditions for the E-optimality of some special classes of row and column designs are presented. Examples are also given to illustrate this theory.