ON OPTIMALITY AND CONSTRUCTION OF CIRCULAR REPEATED-MEASUREMENTS DESIGNS

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Abstract: The aim of this paper is to characterize and construct universally optimal designs among the class of circular repeated-measurements designs when the parameters do not permit balance for carry-over effects. It is shown that some circular weakly neighbour balanced designs defined by Filipiak and Markiewicz (2012) are universally optimal repeated-measurements designs. These results extend the work of Magda (1980), Kunert (1984b) and Filipiak and Markiewicz (2012).

Key words and phrases: Circular weakly balanced design, repeated-measurements design, uniform design, universal optimality.