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ON THE APPROXIMATION OF THREEVARIATE B-CONTINUOUS FUNCTIONS

Dan BĂRBOSU

Abstract: The goal of the paper is to extend the results of a paper by C. Badea, I. Badea and H.H. Gonska [1] to the approximation of the threevariate B-continuous functions in the sense of K. Bögel [5]. In section 1, the notions of B-continuous and uniformly B-continuous function from [5] are extended to the case of the threevariate B-continuous functions. Some relationships among these notions are established.

In section 2 we discuss a Korovkin-type criterion for the approximation by means of linear positive operators of the B-continuous functions of three variables.

In section 3 we present some applications illustrated by the approximation of threevariate functions using the operators of Bernstein-Stancu, and Bleiman-Butzer-Hahn.