

CARPATHIAN J. MATH.
19 (2003), No. 1, 41 - 50

On a set-valued integral

ANCA CROITORU

ABSTRACT. We have introduced in [5] an integral for multifunctions with respect to a multimeasure, both the multifunction and the multimeasure are taking values in the family of all nonempty compact convex subsets of a real Banach algebra. In this work we establish some relations between the integral defined in [5] and the integrals of Aumann [1], Brink-Maritz [3], Brooks [4] and Martelloti-Sambucini [9]. Then we give a Fichtenholz-Kantorovič type theorem using the integral defined in [5].

"AL. I. CUZA" UNIVERSITY
FACULTY OF MATHEMATICS
IAȘI 700506, ROMANIA
E-mail address: croitoru@uiac.ro