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Luisa Di Piazza* (dipiazza@dipmat.math.unipa.it), Universita' di Palermo, Dipartimento di Matematica ed Applicazioni, via Archirafi, 34, 90123 Palermo, Italy. On some nonabsolute convergent integrals of Banach valued functions.

We present a complete characterization of the variationally McShane integral for Banach-space valued functions defined an a finite, outer regular quasi-Radon measure space. As corollary of this characterization we get a generalization of a W. Congxin- Y. Xiabo's result for Banach-space valued functions defined on closed interval endowed with the Lebesgue measure. Moreover, using this characterization we also generalize a result of V. Skvortsov and V. Solodov which proved that the McShane integral and the variationally McShane integral are equivalent, when considered on a closed interval equipped with the Lebesgue measure, if and only if the range space is of finite dimension. (Received July 18, 2000)