

Banach J. Math. Anal. 4 (2010), no. 2, 53–74

BANACH JOURNAL OF MATHEMATICAL ANALYSIS ISSN: 1735-8787 (electronic) www.emis.de/journals/BJMA/

THE GENERAL FUBINI THEOREM IN COMPLETE BORNOLOGICAL LOCALLY CONVEX SPACES

JÁN HALUŠKA¹ AND ONDREJ HUTNÍK^{2*}

Communicated by M. Abel

ABSTRACT. The Fubini theorem for the generalized Dobrakov integral in complete bornological locally convex topological vector spaces is proven.

 1 Mathematical Institute of Slovak Academy of Science, Grešákova 6, 040 01 Košice, Slovakia.

E-mail address: jhaluska@saske.sk

² INSTITUTE OF MATHEMATICS, FACULTY OF SCIENCE, PAVOL JOZEF ŠAFÁRIK UNIVER-SITY IN KOŠICE, JESENNÁ 5, 040 01 KOŠICE, SLOVAKIA.

E-mail address: ondrej.hutnik@upjs.sk

Date: Received: 14 January 2010; Accepted: 26 January 2010.

 \ast Corresponding author.

²⁰⁰⁰ Mathematics Subject Classification. Primary 46G10; Secondary 28B05.

Key words and phrases. Fubini theorem, bilinear integral, bornology, locally convex topological vector space, product measure, Dobrakov integral.