

1113-46-258

Timur Oikhberg* (oikhberg@illinois.edu), **Garth Dales**, **Niels Laustsen**, **Martino Lupini** and **Vladimir Troitsky**. *Multinorms: new developments (joint work with G. Dales, N. Laustsen, M. Lupini, and V. Troitsky)*.

A p -multinormed space ($1 \leq p \leq \infty$) is a pair consisting of a Banach space X , and a left tensorial cross norm on $\ell_p \otimes X$ (“left tensorial” means that, for any $u \in B(\ell_p)$, we have $\|u \otimes I_X\| \leq \|u\|$). The study of p -multinorms originates in an attempt, in the 1990s, to describe subspaces of Banach lattices. More recently, Dales, Daws, Pham, and Ramsden used multinorms to show that $L_p(G)$ is injective as a left $L_1(G)$ module if and only if the locally compact group G is amenable. In this talk, we survey some recent results on p -multinormed spaces, such as local reflexivity, injective and projective objects, and representation as subspaces, quotients, or subquotients of Banach lattices. (Received August 24, 2015)