Unbounded m-Convergence and Unbounded m-Topology in Multi-Normed Vector Lattices

Yousef A.M Dabboorasad

Middle East Technical University (METU)
ysf_atef@hotmail.com

April 18, 2017

Abstract

The topic of unbounded convergences and its applications have attracted attention of many researchers recently. In this talk we investegate another kind of unbounded convergence in multi-normed vector lattices which we refer as unbounded m-convergence or (um-convergence, for short). This convergence generalizes many other convergences in vector and Banach lattices which have been investigated recently. Unlike unbounded order convergence the um-convergence is topological and this topology serves as a generalization of two recent related topologies, namely the unbounded norm topology and the unbounded absolute weak topology.

Keywords. Vector Lattice, Banach Lattice, Unbounded Norm Topology, Multi-Normed Vector Lattices, Unbounded m-Convergence, Um-topology.