Asymptotic Behavior of Sequences in Vector Lattices

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Abstract

Classical asymptotic notations O, Ω, and Θ are widely used to describe the growth behavior of sequences in functional and theoretical numerical analysis. Motivated by these classical concepts, the asymptotic relations O_a^b, Ω_a^b, and Θ_a^b for sequential convergence were introduced in [2]. In this talk, we investigate the asymptotic relations O_a^b, Ω_a^b, and Θ_a^b associated with several types of convergences defined on Banach lattices. We present various order theoretical properties of these relations, including domination and subsequence results for different convergences. We further study these asymptotic relations on regular sublattices of vector lattices. The results presented in this talk are based on the paper [1].

Keywords: Asymptotic behavior, convergence, vector lattice.

References:

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