Homology, Cohomology, and Uniform Shape

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Abstract: In this paper we study two kinds of Čech homology and cohomology theories of uniform spaces – those based on all finite dimensional uniform coverings of finitistic uniform spaces and those based on all finite uniform coverings of uniform spaces. More specifically, we obtain appropriate continuity axioms and prove the uniqueness theorems for these Čech theories. Then we discuss the exactness of Künneth sequences and the Bockstein sequences and obtain the uniform versions of the Wallace's Theorem for these Čech theories.