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CONVERGENCE OF A SET-INDEXED STOCHASTIC PROCESSES

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Abstract

The purpose of this article is to extend the concept of convergence of random variables to set indexed framework. Several types of convergence are presented (convergence in probability, convergence in almost surely, convergence in L^p and convergence in finite dimensional distribution) and the relations that exist among various notions of convergence are formalized. In addition, some applications on set indexed Brownian motion are introduced.

Keywords and phrases: convergence, set indexed stochastic process, flow, Brownian motion.