



**SET INDEXED STRONG MARTINGALE ON
INCREASING SEQUENCES**

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Abstract

We prove that a square-integrable set-indexed stochastic process is a set-indexed Brownian motion if and only if its projection on all the strict increasing continuous sequences is one-parameter G -time-changed Brownian motions. An addition, we study the “sequence independent variation” property for group stationary increment stochastic process in generally and for set-indexed Brownian motion specifically. We present some applications.

Keywords and phrases: set indexed process, Brownian motion, increasing path.

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