1092-60-92 **Steven T Morrow*** (steven.morrow@fairmontstate.edu). *A 'Cousin of Coboundary' Theorem for $C[0,1]$-Valued Random Fields with Moment Conditions.* Preliminary report.

Klaus Schmdit proved the following in 1977: Given a strictly stationary sequence $(X_k, k \in \mathbb{Z})$ of real-valued random variables, such that the family of distributions of the sequence of partial sums is tight, there exists a strictly stationary sequence $(Y_k, k \in \mathbb{Z})$ such that for each k, $X_k = Y_k - Y_{k+1}$. We say that the sequence (X_k) is a "coboundary".

In 1995, Richard Bradley improved this to include non-stationary sequences, while retaining the result of Schmidt as a corollary. Furthermore, in 1997 Bradley extended this result to $C[0,1]$-valued random variables. In 2000, for real-valued random variables, Aaronson and Weiss proved a coboundary theorem involving moments, which we refer to as an L^p-coboundary theorem, for $p \in [1, \infty)$. The condition of tightness was replaced by L^p-boundedness of the partial sums, and the resulting sequence (Y_k) had the property that $\|Y_k\|_p < \infty$ for all k.

The talk will discuss a new result, which is an L^p-coboundary theorem for $C[0,1]$-valued random variables. (Received July 31, 2013)