The space $D([0, 1])$ of right-continuous functions with left-hand limits on $[0, 1]$ is important in probability for investigating stochastic processes and is also important in many applications in mathematical statistics.

Let $(X_k)$ denote a sequence of independent and non identically distributed random variables in $D([0, 1])$, with $D[0, 1]$ is equipped with the uniform topology (i.e $\|x\| = \sup_{0 \leq x \leq 1} |x(t)|$, for any $x \in D[0, 1]$). In this talk we will examine sufficient conditions for the sequence $(X_k)$ to satisfy the strong law of large numbers in $D([0, 1])$. Some statistical applications will be discussed. (Received September 20, 2006)