

ON THE ALMOST SURE CONVERGENCE OF SERIES

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We will study the almost sure convergence of series $\sum_k X_k$, where the X_k 's are random variables in $L^p(\Omega, \mathcal{F}, \mathbb{P})$, $p \geq 1$. The main examples will be of the type $X_k = a_k f \circ T^k$ with T a measure preserving transformation and (a_k) a numerical sequence or $X_k = a_k g(n_k x)$ with g a 1-periodic function on (\mathbb{R}, λ) and (n_k) an increasing sequence of integers. The study will make use of martingale technics. Join Ai Jua Fan from Université de Picardie (Amiens).