## 1127-60-366 Michael Woodroofe\*, 1405 Maywood, Ann Arbor, MI 48103, and Dalibor Volny. Quenched Central Limit Theorem for Linear Processes.

For a linear process,  $X_k = \sum_{j=0}^{\infty} a_j \epsilon_{k-j}$ , where  $\epsilon_j$  form a stationary sequence of martingale differences for which  $E(\epsilon_j^2) < \infty$ and  $a_j$  are square sumable, let  $S_n = X_1 + \cdots + X_n$ , and observe that  $S_n = \sum_{j=0}^n b_{n-j}\epsilon_j$ , where  $b_n = a_0 + \cdots + a_n$ , so that  $\sigma_n^2 := E(S_n^2) = (b_0^2 + \cdots + b_n^2)E(\epsilon_0^2)$ . Ibragimov showed that if  $\sigma_n \to \infty$  as  $n \to \infty$ , then the distribution of  $S_n/\sigma_n$ converges to the standard normal distribution. The condition  $\sigma_n \to \infty$ , only restricts the coefficients  $a_j$ . In the talk, I will present conditions under which the convergence is quenched (that is, the conditional distributions, given  $\cdots \epsilon_1, \epsilon_0$ converge to the standard normal w.p.one. (Received February 07, 2017)