1092-60-292 **Cristina Tone*** (cristina.tone@louisville.edu). *Limit theorems for random fields satisfying an interlaced mixing condition.*

For strictly stationary Hilbert-space valued random fields satisfying the interlaced ρ'-mixing condition, a CLT is obtained. We then apply the finite dimensional case to obtain a functional central limit theorem for empirical processes endowed with real values from a strictly stationary random field satisfying the same ρ'-mixing condition. Next we introduce a CLT for a sequence of strictly stationary random fields that are uniformly ρ'-mixing and satisfy a Lindeberg condition. This "Lindeberg CLT" is then used to prove a CLT for some kernel estimators of probability density for some strictly stationary random fields satisfying the ρ'-mixing, and whose probability density and joint densities are absolutely continuous. (Received August 12, 2013)