Shu-Yen Pan* (sypan@math.nthu.edu.tw), Department of Mathematics, National Tsing Hua University, Hsinchu, Taiwan. Preservation principle of local theta correspondence and supercuspidal representations of p-adic groups. Preliminary report.

Let (U(V), U(V')) be a reductive dual pair. The preservation principle of local theta correspondence predicts the existence of a chain of irreducible supercuspidal representations of the groups U(V) or U(V'). In this talk we would like to introduce the idea of using the theory of minimal K-types to study the chain of irreducible supercuspidal representations. In particular, we want to emphasize the role of the unipotent-cuspidal characters constructed by Deligne-Lusztig of finite classical groups in our picture. (Received September 26, 2006)