Yeansu Kim* (yeansu-kim@uiowa.edu), 14 MacLean Hall, Iowa city, IA 52242-1419. The generic Arthur packet conjecture for classical groups and GSpin groups.

Recently, Heiermann and I have constructed the local Langlands parameter that corresponds to an irreducible admissible generic representation of GSpin groups (the generic local Langlands correspondence for GSpin groups). I further study the structure of the $L$-packet which contains a generic representation. As an application, I prove the strong version of the generic Arthur packet conjecture in the cases of classical groups and GSpin groups. The strong version of the generic Arthur packet conjecture states that if the $L$-packet attached to an Arthur parameter has a generic member, then it is a tempered $L$-packet. Note that we first use Shahidi’s following result: If $L$-functions from Langlands-Shahidi method for a connected reductive group $G$ are Artin $L$-functions through the local Langlands correspondence, the week version of the generic Arthur packet conjecture is true for $G$. (Received August 08, 2015)