

**Chengbo Zhu**

**Title: Conservation relations for local theta correspondence**

Abstract: The theory of theta correspondence, initiated by R. Howe, gives one of the few general methods of constructing automorphic forms of groups over number fields.

The talk is about the local theory, called the local theta correspondence, which is a correspondence between admissible representations of two groups of a dual pair. A key question is the non-vanishing and the fundamental principle governing non-vanishing is a conjecture of Kudla and Rallis from the mid 90s, known as the conservation relations. I will discuss my recent work (joint with B. Sun) which establishes this conjecture in full generality.