



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

ARTHUR'S MULTIPLICITY FORMULA AND LOCAL LANGLANDS
CORRESPONDENCE FOR (SPECIAL) ORTHOGONAL AND
UNITARY GROUPS VIA THETA LIFTS

Jialiang Zou (Univ of Michigan)

ABSTRACT:

It is expected that, in some cases, theta lifts realize Langlands functoriality lifts (cf. Adams conjecture and Prasad conjecture). Motivated by this, one can transfer the local Langlands correspondence and Arthur's multiplicity formula from one group to another group via theta lifts. This provides an efficient way to establish new cases of local Langlands correspondence and Arthur's multiplicity formula. In this talk, I will describe how to use this idea to establish the local Langlands correspondence and Arthur's multiplicity formula for (special) orthogonal and unitary groups, which extend the works of Arthur and Mok to non-quasi-split cases. . This talk is based on joint work with Rui Chen.

4 – 5pm, Wednesday, March 1, 2023

Room 204, Smith Hall