



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Colloquium

ARITHMETIC WAVEFRONT SET, LOCAL DESCENT, AND
LOCAL GAN-GROSS-PRASAD CONJECTURE

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ABSTRACT:

The local Langlands conjecture asserts the reciprocal relation between the arithmetic data (L-parameters and related structures) and representations of reductive groups over local fields. For classical groups, the local Gan-Gross-Prasad conjecture can be viewed as a refinement of the local Langlands conjecture, which detects certain branching decomposition of representations by means of the local root number associated with the L-parameters. With a recently developed local descent theory in representations, we are able to take a more step ahead to define and construct the arithmetic wavefront sets of representations by using the refined structures on the arithmetic data. In this talk we will explain the work joint with L. Zhang and that joint with D. Luo and L. Zhang.

4 – 5pm, Wednesday, February 15, 2023

Room 204, Smith Hall