

SPEAKER: Yannan Qiu (Columbia University)

RTG SEMINAR TITLE: $SO(2)$ periods of $SO(3)$ representations

ABSTRACT: We will explain when the (local and global) $SO(2)$ period of an $SO(3)$ representation is non-vanishing and how global L-values occur in the local decomposition of global periods. This introductory talk for graduate students will motivate the Gross-Prasad conjecture.

REGULAR SEMINAR TITLE: $SO(2,2)$ periods of non-tempered $SO(3,2)$ representations

ABSTRACT: We will show a local decomposition of the global $SO(2,2)$ period pairing between CAP representation of $SO(3,2)$ and the discrete spectrum of $GSO(2,2)$. The main tools used in the proof are theta lifting and regularization theory of divergent local periods. Based on this period decomposition, we will further explain how to refine Global Gross-Prasad conjecture for general non-tempered representations.