# ZHIBIN GENG

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## Education

#### Academy of Mathematics and Systems Science, CAS

Beijing, China

Ph.D. candidate in Mathematics

Sep. 2020 - Jun. 2025(Expected)

o Advisor: Prof. Binyong Sun

#### **Shandong University**

Jinan, China Sep. 2016 – Jun. 2020

B.Sc. in Mathematics and Applied Mathematics

o Hua Loo-Keng class, School of Mathematics

 $\circ$  GPA: 4.67/5.00, Rank: 1/47

#### Research Interests

My research interests lie in representation theory of real and p-adic Lie groups, as well as their connection to the (classical and relative) Langlands program. My current research is concerned with the distinction problems with respect to certain subgroups and the study of nilpotent invariants of the representations.

## **Preprints**

• On the existence of twisted Shalika periods, preprint.

In this paper, we investigate the existence of twisted Shalika periods of  $GL_{2n}(\mathbb{K})$  in terms of L-parameters, where  $\mathbb{K}$  denotes an archimedean local field. We also address the case of generic representations of  $GL_{2n}^+(\mathbb{R})$ . As part of our proof, we develope useful tools in the framework of Schwartz homology, including a Künneth formula and a Hochschild-Serre spectral sequence for nilpotent normal subgroups.

#### Conferences Attended

Real reductive groups and Theta correspondence

Yunnan, China Jul. 2024 Beijing, China Jul. 2023

Satellite Conference in Number Theory of ICBS

### **Awards and Honors**

- $\circ~$  Hua Loo-Keng Scholarship, Academy of Mathematics and Systems Science, Chinese Academy of Science, 2020
- o National Scholarship, Ministry of Education of China, 2017, 2018, 2019
- Hua Loo-Keng Scholarship, Academy of Mathematics and Systems Science, Chinese Academy of Science, 2017