

ZHIBIN GENG

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Education

Academy of Mathematics and Systems Science, CAS

Ph.D. candidate in Mathematics

Beijing, China

Sep. 2020 – Jun. 2025

- Advisor: Prof. Binyong Sun

Shandong University

B.Sc. in Mathematics and Applied Mathematics

Jinan, China

Sep. 2016 – Jun. 2020

- Hua Loo-Keng class, School of Mathematics
- 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 its 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: the Archimedean case. Submitted. arXiv:2501.11917.
In this paper, we investigate the existence of twisted Shalika periods of $\mathrm{GL}_{2n}(\mathbb{K})$ in terms of L-parameters, where \mathbb{K} denotes an archimedean local field. We also address the case of generic representations of $\mathrm{GL}_{2n}^+(\mathbb{R})$. As part of our proof, we develop useful tools in the framework of Schwartz homology, including a Künneth formula and a Hochschild-Serre spectral sequence for nilpotent normal subgroups.

Invited Talks

- Doctoral Algebra Forum, Peking University, June 23-24, 2025
- Representation Theory Seminar, Nankai University, March 3, 2025

Conferences Attended

Real reductive groups and Theta correspondence

Yunnan, China

Jul. 2024

Satellite Conference in Number Theory of ICBS

Beijing, China

Jul. 2023

Other Activities

- Reading Seminar on *The Langlands Classification and Irreducible Characters for Real Reductive Groups*, Fall 2024
- Seminar on *Associated Varieties for Real Reductive Groups and the Orbit Method*, 2023

Skills

Languages: Chinese (native), English (fluent).

IT: MATLAB, Python, L^AT_EX.

Awards and Honors

- Merit Student, University of Chinese Academy of Sciences, 2021, 2022
- Hua Loo-Keng Scholarship, Academy of Mathematics and Systems Science, Chinese Academy of Science, 2020
- Outstanding Graduate, Shandong University, 2020
- National Scholarship, Ministry of Education of China, 2017, 2018, 2019

- First Prize, China Undergraduate Mathematical Contest in Modeling (Shandong Province), Shandong Provincial Department of Education, 2017
- Hua Loo-Keng Scholarship, Academy of Mathematics and Systems Science, Chinese Academy of Science, 2017