ZHIBIN GENG

✉ gengzhibin@amss.ac.cn   📞 +86 15966335379   🔗 lyle24.github.io/zhibingeng

Education

Academy of Mathematics and Systems Science, CAS *Beijing, China*
Ph.D. candidate in Mathematics *Sep. 2020 – Jun. 2025(Expected)*

- Advisor: Prof. Binyong Sun

Shandong University *Jinan, China*
B.Sc. in Mathematics and Applied Mathematics *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 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: the Archimedean case (preprint), available on my homepage at lyle24.github.io/zhibingeng.

  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.

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, LaTeX.

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