ZHIQI ZHU，朱祉琪

Università di Padova
Dipartimento di Matematica "Tullio Levi-Civita"
Via Trieste, 63 - 35121 Padova
People's Republic of China

Email: zhiqi.zhu@studenti.unipd.it
or: zhuzhiqi0730@gmail.com
Phone: +86 184 5837 7371 (CHN) or +39 324 287 3302 (IT)
blog & homepage: https://pmenom.github.io/EnHome.html

[Notes]

Current (Research) Interests (Advisor when undergraduated: Dr. Prof. Shanwen Wang)

- **Representation Theory** and **Number Theory**, in particular **Automorphic Forms, Trace Formula**, Langlands correspondence,

- Algebraic Geometry, including Complex Geometry and Arithmetic Geometry,

- Harmonic Analysis.

Education

- **ALGANT** Master   2024.9 – Present

    Università di Padova (M1) and Universität Duisburg-Essen (M2)

- Visiting Research Student, BIMCR,   2023.8 – 2024.6

- Enhanced program for Graduate Study (visiting research student), BIMCR,

                                                                                                  2023.2 - 2023.7

- Undergraduate, Mathematics,   2020.9 – 2024.6

    The Experimental Class for Top Talents Program, Renmin Univ. of China

Teaching Assistant

- Modular Forms (Graduate course),   2023.9 – 2024.12

- Mathematical Analysis III (2rd year course),   2023.9 – 2024.12

- Calculus (1st year course),   2023.9 – 2024.12

- Real Analysis (2nd year course).   2023.2 - 2023.6

Bachelor Thesis/Study Note

[Local Gan-Gross-Prasad Conjecture: Tempered Hermitian Case],   2023.4 - 2024.4

In this paper, we study, following work of Beuzart-Plessis in [BP20], a geometric expansion for certain multiplicities m(\pi) appearing in the local Gan-Gross-Prasad Conjecture, and Beuzart-Plessis's proof on a weak form of this conjecture (on the multiplicity one property in tempered L-packets). In Beuzart-Plessis's proof, the crucial step is to study a sort of local relative trace formula which is related to the Gan-Gross-Prasad Conjecture for unitary groups over a local field F of characteristic zero. It is also the English version of my bachelor thesis.

Undergraduate Research Opportunities

- Modular Forms, Geometric Modular Forms and Automorphic Forms,

2022.4 - 2023.4

Bichang Lei, Mucheng Dong, Yu Yao, **Zhiqi Zhu**.

Attended Mini Courses/Seminars

- Representation Theory & Noncommutative Geometry   2025.2 – 2025.3

  I join in the [Workshop 2: Tempered representations and K-theory], p-adic week and Theta correspondence week in person. Details and Personal Notes can be found [Here].

- From Modular Forms to Shimura Varieties: an introduction   2024.1

- Arizona Preliminary Winter School, Arizona (Online),   2023.9 – 2023.12

  Focus on the CM elliptic curve and class field theory of imaginary quadratic fields.

- Core topics in modern number theory, YMSC,   2022.12 - 2023.6

- 2022 Summer School on Differential Geometry, BIMCR,   2022.8

- Algebraic number theory, summer school, Nanjing University.   2022.7

Talks/Seminars Organized

- Reps Theory on the Archimedean Place with Emphasis on GL(2),   2023.8 – 2024.4

- Algebraic Geometry and Elliptic Curves,   2022.9 – 2023.10

- Category Theory and Homological Algebra,   2023 Spring

- Lie groups and the representation theory,   2022 Spring

- Differential manifolds, differential topology,   2021 Winter

Languages

- Chinese   Native

- English   Working Proficiency

- Latex   Working Proficiency

- French   Learning

  J'ai essayé de lire quelques articles en français.