KAIXING CAO

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Dipartimento di Matematica "Federigo Enriques"
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Milan - Italy

Education

- **University of Milan** — Milan, Italy
  Ph.D. in Mathematics (Supervisor: Prof. Alberto Vezzani) — *Sep 2022 - Present*

- **Academy of Mathematics and System Science, Chinese Academy of Sciences** — Beijing, China
  M.Sc. in Mathematics — *Sep 2019 - Jun 2022*

- **Hohai University** — Nanjing, China
  B.Sc. in Mathematics — *Sep 2015 - Jun 2019*

Research Interest

Arithmetic Geometry, p-adic Geometry, p-adic Hodge Theory, Rigid Analytic Motive

Preprints

[1] **Kaixing Cao**. "A Weight Structure on Rigid Analytic Motives over a Field". completed; to be uploaded on arXiv. 2025.

[2] **Kaixing Cao**. "Comparison of Hyodo-Kato and de Rham Fargues-Fontaine Cohomologies". completed; to be uploaded on arXiv. 2025.

Participation in conferences

- **Geometric Aspects of the Langlands Correspondence [🌐]** — Essen, Germany
  Universität Duisburg-Essen — *August* 2025

- **Arakelov Geometry and Condensed Mathematics [🌐]** — Strasbourg, France
  Institut de recherche mathématique avancée — *May* 2025

- **Algebraic geometry: a motivic view [🌐]** — Zurich, Switzerland
  Eidgenössische Technische Hochschule Zürich, ETH Zurich — *January* 2025

- **Arithmetica Transalpina [🌐]** — Milan, Italy
  University of Milan — *November* 2024

- **Nearby Cycles and Derived Geometry [🌐]** — Regensberg, Germany
  University of Regensberg — *February and March* 2024

- **Arithmetica Transalpina [🌐]** — Padova, Italy
  University of Padova — *November* 2023

- **Arbeitstagung 2023 on Condensed Mathematics [🌐]** — Bonn, Germany
  Max Planck Institute for Mathematics, MPIM — *June* 2023

- **Research School on Condensed Mathematics [🌐]** — Luminy, France
  Centre International de Rencontres Mathématiques, CIRM — *March* 2023

- **PrisMiPd Prismatic Workshop [🌐]** — Milan - Padova, Italy
  First Meeting in Milan and Second Meeting in Padova — *January and February* 2023

- **Mini-Course: p-adic Hodge Theory and Prismatic Cohomology [🌐]**   Beijing, China
  Beijing International Center for Mathematical Research, BICMR   *November - December,* 2021
- **Mini-Course: Perfectoid Spaces and p-adic Hodge Theory [🌐]**   Beijing, China
  Beijing International Center for Mathematical Research, BICMR   *September - October,* 2021
- **From Modular Forms to Shimura Varieties: an Introduction [🌐]**   Beijing, China
  Beijing International Center for Mathematical Research, BICMR   *July,* 2021

Talks

- **Reading Seminar on "(Light) Condensed Mathematics"**   Milan, Italy
  Analytic Rings Associated to Huber Pairs   *February,* 2025
- **SeMIVA on "Spectral Algebraic Geometry" [🌐]**   Milan, Italy
  Tannaka Duality for Truncated Cases   *July,* 2024
- **PhD^{2}ays 2024 [🌐]**   Milan, Italy
  An Introduction to Non-Archimedean Geometry   *March,* 2024

Honors and Awards

- **Doctoral Scholarship**   *Oct 2022 - Sep 2025*
  University of Milan
- **Merit Student**   *Jun 2021*
  University of Chinese Academy of Science
- **Chinese Mathematics Competition**   *Nov 2017*
  CMC 1st Prize of Jiang Su Province
- **China Undergraduate Mathematical Contest in Modeling**   *Nov 2017*
  CUMCM 1st Prize of Jiang Su Province