

# KAIXING CAO

✉ [Kaixing.Cao@unimi.it](mailto:Kaixing.Cao@unimi.it) | ✉ [kaihsingtsao@gmail.com](mailto:kaihsingtsao@gmail.com)  
Dipartimento di Matematica “Federigo Enriques”  
Via Cesare Saldini 50, 20133  
Milan - Italy

## Education

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- **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 (Supervisor: Prof. Xu Shen)* Sep 2019 - Jun 2022
- **Hohai University** Nanjing, China  
*B.Sc. in Mathematics* Sep 2015 - Jun 2019

## Research Interest

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

## Preprints

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- [1] **Kaixing Cao**. “A Weight Structure on Rigid Analytic Motives over A Field”. Preprint, to appear on arXiv. 2025.
- [2] **Kaixing Cao**. “Comparison of Hyodo-Kato and de Rham Fargues-Fontaine Cohomologies”. Preprint, to appear on arXiv. 2025.



## Participation in conferences

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- **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** [🌐] Regensburg, Germany  
*University of Regensburg* 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

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- **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<sup>2</sup>ays 2024**  Milan, Italy  
*An Introduction to Non-Archimedean Geometry* March, 2024

## Honors and Awards

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- **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*