Chen-Wei (Milton) Lin

email: clin130@jhu.edu

Education

Ph.D. of Mathematics, Johns Hopkins University, 2019-2025 (Expected)
Supervisor: David Gepner
Thesis title: Geometric and Categorical Aspects of the Langlands Program.

Masters of Mathematics, University of Oxford, 2018-2019
Dissertation Topic: Index of Operators and KK-theory. Supervisor: Dr. Andre Henriques.
Fourth year examinations, ranked 4th in cohort
Best dissertation award

BA Mathematics, University of Oxford, 2015-2018
Supervisors: Prof. Glenys Luke, Prof. Tom Sanders.
Preliminary Examinations, ranked Top 10 of approx. 200 students.
Third Year Examinations, ranked Top 10 of approx. 150 students.

Awards and honors

Gibbs Dissertation Prize for Mathematics
Awarded by the Oxford Mathematical Institute.
Best Masters of Mathematics dissertation.

Alison Sheppard Prize for Mathematics
Awarded by St Hugh's College, Oxford.
Third year mathematician with highest first class in College.

St Hugh's College Scholarship Award
Awarded by St Hugh's College, Oxford, annually.
First Class Honors in each year.

Invited Talks

Technical University of Darmstadt, Feburary 7th, 2025.
University of Minnesota Student Number Theory Seminar, November 19th, 2024.
Johns Hopkins University, Topology seminar, September 12th, 2024.

Seminar Talks

2024
Topology E-theory seminar, JHU, on *Gross-Hopkins Period Map*.
Number theory learning seminar, JHU, motivic periods, two talks on *Chen's Theorem*.

2023
Topology Seminar, JHU, on *Dieudonné modules, following Lurie and Hopkins*.
Topics in representation theory seminar, JHU, on *Uniformization of G-bundles*.
Topological Quantum Field Theory learning seminar, JHU, on *Classical Field Theory and σ-models*.
Topics in representation theory seminar, JHU, on *Affine Grassmanian*.

Prismatic cohomology Seminar organizer, with Naruki Masuda and David Gepner.

2022
Heegner points study group, JHU, on *Selmer structures and duality.*
Derived deformation theory seminar, JHU, three talks on *Calegari-Geraghty Method in Modularity Lifting.*
Jacquet Langlands Correspondence student seminar, JHU, four talks.

2021
eCHT Hermitian K-theory, on *Poincaré Categories.*
Category theory seminar, on *Differential Cohomology and Cohesive Topoi.*
Derived deformation theory seminar, JHU, on formal moduli problems.
Seminar on Stack of Langlands Parameter, joint with U Chicago, on *Representation Stacks.*
Non-archimedean study group, on *Formal schemes and Rigid Generic Fiber.*

2020
DaFra Seminar on Condensed mathematics, a talk on *Solid Abelian Groups.*
Étale homotopy study group, Kings College London, a talk on *Étale Homotopy Obstruction.*
Topological Hochschild Homology Seminar, UIC, two talks on *Construction of THH.*
Spectral Algebraic Geometry Seminar, UIC, two talks on *Spectrally Ringed ∞-Topoi.*
eCHT Kan Fall Seminar, two talks on chapter 1 of *A Survey of Elliptic Cohomology, J. Lurie.*
Number Theory Seminar, Uni. of Melbourne, two talks on *Contragredient representations.*
Oberseminar, Uni. of Regensburg, a talk on *The p-complete Frobenius.*

2019
Masters presentation, University of Oxford. On *The Atiyah Singer-Index Theorem.*
Reading Group, University of Oxford. On *Model Categories, Dwyer and Saplinski.*

Professional service

All roles listed below were conducted at Johns Hopkins University.

Graduate Mentorship
(2023-2025) Yashi Jain, serving as a secondary advisor. Primary advisor: David Savitt.

Undergraduate Mentorship
Spring 2024: Viggy Vanchinathan, mentored a DRP project on understanding addition with transformers.
Fall 2023: Spencer Huang, Dev Lalwani, mentored a DRP project on mechanistic interpretability.
Spring 2023: Orisis Zheng, mentored a DRP project on Zariski's lemma in Algebraic Geometry.
Fall 2022: Nick Lombardi: mentored a project on an introduction to the Langlands program.

Fall 2024
Graduate Algebra, Teaching Assistant.
Introduction to Proofs, Teaching Assistant.

Spring 2024
Directed Reading Program, Co-organizer.

Fall 2023
SOUL Course: Interpretability in AI, Lecturer.
Honors Single Variable Calculus, Lecturer.
Directed Reading Program, Organizer and Mentor.

Spring 2023
Calculus III, Head Teaching Assistant.
Directed Reading Program, Co-organizer and Mentor.

Fall 2022
Calculus II, Teaching Assistant.
Directed Reading Program, Co-organizer and Mentor.

Skills

Programming Languages: Python, R, MATLAB
AI Frameworks: TensorFlow, PyTorch
Tools: Jupyter, Git, LaTeX
Languages: Mandarin (native), English (fluent), Ukrainian (elementary proficiency)