

# Chen-Wei (Milton) Lin

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## Education

### Ph.D. of Mathematics, Johns Hopkins University, 2019-Present

Supervisor: David Gepner.

### 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.

### 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.

One or two prizes each year for 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.

## Seminars/talks

### 2023

Topology Seminar, JHU, a talk on *Dieudonné modules, following Lurie and Hopkins*.

Topics in representation theory seminar, JHU, a talk on *Uniformization of  $G$ -bundles*.

Topological Quantum Field Theory learning seminar, JHU, a talk on *Classical field theory and  $\sigma$ -models*.

Topics in representation theory seminar, JHU, a talk 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](#), a talk on Poincaré categories.

[Category theory seminar](#), a talk 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, a talk 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  $\infty$ -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 Sapinski.

# Conferences/schools

## 2024

[Lean for the curious mathematicians](#), CIRM, March 25th to 29th.  
[Arizona Winter School](#), Abelian Varieties March 2nd - 6th.  
[Mentorship for Alignment Research Students](#) (MARS) Cambridge (UK), on singular learning theory, Jan-March.  
[AI Safety Camp](#) (AISC), on autoformalization, Jan-April.

## 2023

Center of AI Safety, Machine Learning Safety Course. Summer 2023.  
[ELLIS Summer School on Probabilistic Machine Learning](#), University of Cambridge, July 17th-July 21st  
 OxML (Oxford Machine Learning) 2023, University of Oxford, July 6th - July 17th.  
[Geometry and topology meets data analysis and machine learning](#), Northeastern University, June 8th-June 10th.  
[MSRI Machine Learning](#), UC San Diego, June 26th -July 7th.  
[The arithmetic of Langlands Program](#), University of Bonn, Germany, May 1st - May 14th.  
[Non-archimedean geometry and eigenvarieties](#), University of Heidelberg, Germany, March 6th - March 17th.  
[Topological Hochschild Homology and Zeta Values](#), January 30th - February 3rd.

## 2020-2022

APAW, A pair of automorphic workshops, Oregon, July.  
 Motives and arithmetic groups, summer school in Strasbourg, June.  
 Workshop on Derived Geometry, CIRM Barcelona.  
 MSRI Higher Categories and Categorifications, Jan-March.

# Teaching/supervision

## Spring 2024

Directed Reading Program, organizer, Johns Hopkins University.

## Fall 2023

SOUL Course, Interpretability in AI, Lecturer, Johns Hopkins University.  
 Honors Single Variable Calculus, Lecturer, Johns Hopkins University.

Directed Reading Program, organizer and mentor, Johns Hopkins University.

**Spring 2023**

Calculus III Head Teaching Assistant under Dr. Xiong Wang.

[Directed Reading Program](#) organizer with Benjamin Dees.

Directed Reading Program mentor.

Mentee: Orisis Zheng.

Topic: Zariski's lemma in algebraic geometry.

**Fall 2022**

Calculus II Teaching Assistant under Dr. Fajun Meng.

Directed Reading Program organizer with Benjamin Dees.

Directed Reading Program mentor.

Mentee: Orisis Zheng.

Topic: Maxwell Equations and differential geometry.

Mentee: Nick Lombardi.

Topic: Introduction to Langlands Program.