

# Chen-Wei (Milton) Lin

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## Education

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

Expected Graduation, July 2025.

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.

## Publications and preprints in mathematics

[Mixed characteristic Geometric Casselman Shalika Formula](#), [arXiv:2408.07953](#). Joint with Ashwin Iyengar (Johns Hopkins University) and Konrad Zou (Bonn University). In this paper, we prove the geometric Casselman Shalika formula in the setting of Witt vector Grassmanian.

[Integral aspects of Fourier Duality](#) [arXiv:2407.06184](#) In this joint work we have proven several results regarding integral versions of Fourier duality for abelian schemes, using Pappas's work on integral Grothendieck–Riemann–Roch.

## Seminars/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  $\sigma$ -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  $\infty$ -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 Spalinski.