# Joseph Berner

*Curriculum Vitae*

## Education

2012–present **PhD Pure Mathematics**, *University of Illinois at Chicago*, Chicago, IL.

2012 **Bachelor of Science**, *University of Illinois at Chicago*, Chicago, IL.

## Research

### Thesis

Title *Étale homotopy type of non-archimedean analytic spaces*

Supervisors Professor Henri Gillet

Description This defines the étale homotopy type of non-archimedean analytic spaces, and explores the relation of that object to both classical algebraic geometry and logarithmic geometry. In early stages of preparation

### Mathematical Interests

General Non-archimedean geometry, logarithmic geometry, arithmetic geometry, derived algebraic geometry, motivic homotopy theory

## Experience

### Teaching

2012–Present **Teaching Assistant**, Department of Mathematics, Statistics, and Computer Science, University of Illinois at Chicago, Chicago, IL.

As a Teaching Assistant I ran discussion sections, regularly taught 20 minute miniature lectures to review the week's material, engaged in tutoring, grading, and was the general go-to for students having questions about the content. I've had a fairly broad selection of experience:

List of courses:

- Math 090 - Intermediate Algebra
- Math 121 - Precalculus Mathematics
- Math 125 - Elementary Linear Algebra
- Math 180 - Calculus I
- Math 181 - Calculus II
- Math 220 - Introduction to Differential Equations

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**Instructor**, Department of Mathematics, Statistics, and Computer Science, University of Illinois at Chicago, Chicago, IL.
I had the opportunity to be an instructor in the UIC Summer Enrichment Mathematics Workshop, an accelerated course for incoming freshmen. I was the sole instructor for the classes, responsible for 6 hours of class time a week for 5 weeks, with class sizes between 12 and 20. Specifically I taught,

- Summer 2013 - Math 090 - Intermediate Algebra
- Summer 2014 - Math 090 - Intermediate Algebra
- Summer 2015 - Math 075 - Beginning Algebra

**Grader**, *University of Illinois at Chicago*, Chicago, IL.
I have had grading duties in the following semester:

- Spring 2013 - Math 516 - Graduate Abstract Algebra 2

## Awards

2015 NSF Research Training Groups Fellowship, DMS 1246844

## Selected Conferences and Seminars

### Organized

2016 The Dylon Chow Lecture Series in Derived Algebraic Geometry, UIC

2015 The 2015 Midwest Number Theory Conference for Graduate Students and Recent PhD's, UIC

### Attended

2015 $K$-theory Summer School, USC

2015 Chow Groups, Motives, and Derived Categories, IAS

2014 Representation Theory and $K$-theory, USC

## Languages

English **Native**

Spanish **Basic**

French **Basic** *Only able to read Bourbaki-style content*

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