

# Axel Kodat

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Department of Mathematics  
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## Education

### **CUNY Graduate Center**

PhD Program in Mathematics  
Advisor: Enrique Pujals

2017-present

### **Swarthmore College**

BA with High Honors in Mathematics and Philosophy

2011-2015

## Preprints

*An average intersection estimate for families of diffeomorphisms*  
with Michael Shub, arXiv:2403.17349

2024

## Talks

*Dynamical Systems Seminar*  
IMPA, Rio de Janeiro, BR

Feb 2024

*From dynamics to complexity, and back again: a conference in celebration of Michael Shub's 80th Birthday*  
IMERL, Universidad de La República, Montevideo, UY

Jan 2024

*Complex Analysis & Dynamics Seminar, CUNY Graduate Center*  
• "An average intersection estimate for families of diffeomorphisms"

Dec 2023

*Learning Seminar on Ergodic Theory & Dynamical Systems, CUNY GC*

- "Introduction to the entropy conjecture"
- "Distortion elements in diffeomorphism groups"
- "A Tits alternative for subgroups of circle homeomorphisms"

Dec 2023

Oct 2022

Feb 2022

## Teaching

### **Brooklyn College**

Math 1011: Precalculus (College Now)  
Math 1201: Calculus I  
Math 1206: Calculus II  
Math 1401: Elementary Math from an Advanced Standpoint  
Math 2201: Calculus III

Summer 2018  
Fall 2018, Fall 2019  
Spring 2021  
Summer 2019  
Spring 2020, Fall 2020

### **Delaware County Community College**

Math Tutor

2015-2016

## Conferences

<i>Symplectic dynamics in Montevideo</i> Universidad de La República, Montevideo, UY	Feb 2024
<i>From dynamics to complexity, and back again: a conference in celebration of Michael Shub's 80th Birthday</i> Universidad de La República, Montevideo, UY	Jan-Feb 2024
<i>Workshop in Dynamical Systems and Related Topics</i> Penn State, State College, PA	November 2023
<i>Partial Hyperbolicity Workshop &amp; Summer School</i> Brin Center, University of Maryland, College Park, MD	May-June 2023
<i>Big Mapping Class Groups and Diffeomorphism Groups</i> CIRM, Marseille, FR	October 2022
<i>School on Dynamical Group Theory</i> Université de Bourgogne, Dijon, FR	October 2022
<i>Workshop on Dynamical Systems</i> University of Maryland, College Park, MD	April 2022
<i>Flexibility &amp; Rigidity in Dynamical Systems</i> Stony Brook University, Stony Brook, NY	March 2022
<i>Midwest Dynamical Systems Conference</i> Northwestern University, Chicago, IL	November 2021

## Fellowships & Awards

NSF Grant DMS-2400008: A description of surface dynamics (PI: Enrique Pujals)	2024-present
Special Projects Fellow, CUNY Academy for the Humanities & Sciences	2023-present
CUNY Initiative for the Theoretical Sciences, Simons Fellowship	2022-2023
Excellence in Teaching by a Doctoral Candidate Award (GC Math)	2021
NSF Grant DMS-1956022: Dynamics of surface maps (PI: Enrique Pujals)	2020-2022
Math/Graduate Center Fellowship, CUNY Graduate Center	2017-2022
Kitüntetéssel (Honors), Budapest Semesters in Mathematics	2013