

THEODORE SANDSTROM

CURRICULUM VITAE

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FIELDS OF INTEREST: Singularities in commutative algebra and algebraic geometry

EDUCATION

University of Illinois Chicago - Chicago, IL

Ph.D. in Mathematics

Aug 2023-present

Yale University – New Haven, CT

M.S. in Mathematics

Aug 2021-May 2023

B.S. in Mathematics and Linguistics

Aug 2019-May 2023

Magna cum laude, honors in both majors

Thesis: Geometric Probes for Constituency Structure in BERT Embeddings

PUBLICATIONS/PREPRINTS

1. *ACC for F-signature: a likely counterexample* (with C. Adams, A. Simpson), submitted 2024.
2. *On localization of tight closure in line- S_4 quartics* (with L. Borevitz, N. Nader, A. Shapiro, A. Simpson, J. Zomback). *J. Pure Appl. Algebra*, 2024.
3. *Realizing pairs of multicurves as cylinders on translation surfaces* (with J. Aygun, J. Barkdoll, A. Calderon, J. Lorman), submitted 2024.
4. *Virtual multicrossings and petal number for virtual knots and links* (with C. Adams, C. Even-Zohar, J. Greenberg, R. Kaufman, D. Lee, D. Li, D. Ping, X. Wang), *J. Knot Theory Ramifications*, 2023.

CONFERENCES

Joint Math Meetings (poster), “Localization of tight closure in line- S_4 quartics”

Jan 2023

UIC UMS (poster), “Localization of tight closure in line- S_4 quartics”

Nov 2022

OSU YMC, “Calculations in tight closure theory”

Aug 2022

MAA MathFest, “Cylinder configurations on translation surfaces”

Aug 2021

Uconn REU Conference, “Cylinder configurations on translation surfaces”

July 2021

WORKSHOPS

Teaching and Presentation of Mathematics

Aug 2023-Dec 2023

University of Illinois Chicago

TEACHING

University of Illinois Chicago – Chicago, IL

Workshop, Intro to Advanced Math (Instructor)

Aug 2024-present

Calculus II (TA)

Aug 2024-present

Updated: Aug 2024

Introduction to Computer Science (TA)	<i>Jul 2024-Aug 2024</i>
Elementary Linear Algebra for Business (TA)	<i>Aug 2023-Jun 2024</i>
Yale University – New Haven, CT	
Linear Algebra (Undergraduate TA)	<i>Sep 2022-Dec 2022</i>
Analysis II: Lebesgue Integration (Undergraduate TA)	<i>Jan 2022-May 2022</i>
Applied Linear Algebra (Peer Tutor)	<i>Sep 2021-Dec 2021</i>
Vector Analysis and Linear Algebra (Grader)	<i>Sep 2020-Dec 2020</i>
SERVICE	
UIC Mathematics Graduate Student Association Co-President	<i>May 2024-present</i>