

# Matthew Kroesche

Texas A&M University  
Department of Mathematics

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## Personal Information

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## Education

**August 2019 - August 2024 (expected):** Ph.D in Mathematics,  
Texas A&M University, College Station  
Advisor: Dr. Matthew Young

**August 2015 - May 2019:** B.S. in Electrical Engineering and Applied Mathematics,  
Texas A&M University, College Station

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## Research Interests

Analytic number theory,  $L$ -functions, modular forms

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## Teaching Experience

<b>August 2023 - December 2023</b>	Instructor of Record, MATH 167 - Explorations in Math
<b>June 2023 - August 2023</b>	TA for Texas A&M Number Theory REU Program
<b>January 2023 - May 2023</b>	Instructor of Record, MATH 168 - Finite Mathematics
<b>June 2022 - August 2022</b>	Recitation/Python Lab TA, MATH 151 - Engineering Calculus I Writer for Python lab assignments for all summer sections of MATH 151
<b>January 2022 - May 2022</b>	Recitation/Python Lab TA, MATH 151 - Engineering Calculus I
<b>August 2021 - December 2021</b>	Recitation/Python Lab TA, MATH 151 - Engineering Calculus I
<b>June 2021 - August 2021</b>	Recitation/Python Lab TA, MATH 152 - Engineering Calculus II Writer for Python lab assignments for all summer sections of MATH 152
<b>January 2021 - May 2021</b>	Recitation/Python Lab TA, MATH 152 - Engineering Calculus II
<b>August 2020 - December 2020</b>	Recitation/Python Lab TA, MATH 150 - Precalculus
<b>August 2017 - present</b>	Instructor, Spider Smart/E <sup>3</sup> Learning Center, College Station

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## Conferences Attended

<b>January 2024 (upcoming)</b>	Joint Mathematics Meetings, San Francisco, CA
<b>March 2023</b>	Southern Regional Number Theory Conference, Baton Rouge, LA
<b>January 2023</b>	Joint Mathematics Meetings, Boston, MA
<b>March 2022</b>	Southern Regional Number Theory Conference, Baton Rouge, LA

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## Talks Given

<b>January 2024 (upcoming)</b>	Joint Mathematics Meetings, AMS Contributed Paper Session on Number Theory
<b>November 2023 (upcoming)</b>	UT Tyler Number Theory and Combinatorics Seminar, Tyler, TX (via Zoom)
<b>April 2023</b>	Texas A&M Number Theory Seminar, College Station, TX
<b>March 2023</b>	Southern Regional Number Theory Conference, Baton Rouge, LA

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## Preprints

### **Low-Lying Zeros of a Thin Family of Automorphic $L$ -Functions in the Level Aspect**

Toward Ph.D. thesis, Texas A&M University

<https://arxiv.org/abs/2308.06359>

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## Outreach and Service

<b>October 2023 - present</b>	Referee for the Journal of Number Theory
<b>January 2021 - November 2023</b>	MATHCOUNTS Question Writing Committee member
<b>November 2018 - present</b>	Coach for the Texas Harvard-MIT Math Tournament teams
<b>June 2016 - present</b>	Coach for the Texas American Regions Math League teams
<b>June 2019</b>	Counselor, Summer Math Research Training Camp, Texas A&M
<b>March 2018 - present</b>	Volunteer (and occasional question writer) at the Texas A&M Integral Bee
<b>March 2017 - present</b>	Volunteer (proctor/grader) at the Texas MATHCOUNTS State meet
<b>October 2015 - October 2018, 2021</b>	Volunteer at the Texas A&M High School Mathematics Contest

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## Honors and Achievements

<b>2020 - 2023</b>	N.W. Naugle Fellowship in Mathematics
<b>May 2019</b>	Graduated Texas A&M <i>summa cum laude</i>
<b>December 2018</b>	Putnam examination, top 200
<b>December 2017</b>	Putnam examination, top 500
<b>December 2016</b>	Putnam examination, top 200
<b>December 2015</b>	Putnam examination, top 500
<b>May 2015</b>	Texas ARML Team High Scorer
<b>April 2015</b>	USA Mathematical Olympiad qualifier
<b>April 2014</b>	USA Mathematical Olympiad qualifier

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## Skills

Python, C/C++,  $\text{\LaTeX}$