

Xinran Yu

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Education

- University of Illinois at Urbana-Champaign**, Illinois 2017–present
Ph.D. in Mathematics
MS in Mathematics, May 2019
- University of Liverpool**, Liverpool, United Kingdom 2015–2017
BSc in Mathematics (with Honors), June 2017
Thesis: *Analytic Continuation and Riemann Surfaces*. Supervisor: Dr. Jon Woolf.
- Xi'an Jiaotong-Liverpool University**, Suzhou, China 2013–2015
BSc in Applied Mathematics, June 2017

Teaching & Mentoring

Teaching Assistant, *University of Illinois at Urbana-Champaign* 2019–present

Teaching

- Stand-alone Math231* Calculus II, Spring 2022
Discussion Math241 Calculus III, on [List of Teachers Ranked as Excellent by Their Students \(Fall 2021\)](#)
Discussion Math231 Calculus II, on [List of Teachers Ranked as Excellent by Their Students \(Spring 2021\)](#)
Tutor Math286 Introduction to Differential Equation Plus, Fall 2020

Grading

- Math525* Algebraic Topology I, Spring 2021
Math417 Introduction to Abstract Algebra I, Spring 2020
Math418 Introduction to Abstract Algebra II, Spring 2020
Math417 Introduction to Abstract Algebra I, Fall 2019
Math489 Dynamics & Differential Equations, Fall 2019

Graduate Team Leader at Illinois Geometry Lab, *University of Illinois at Urbana-Champaign* Fall 2019

Faculty mentor: Katelyn Leisman.

Project: [Simulating Multi-Soliton Solutions to NLS and KdV and Studying Interactions](#)

- Our team focused on the nonlinear Schrödinger (NLS) equation with nonzero boundary condition and studied the exact solution of a one-soliton solutions. We compared the solution of those with zero boundary condition, and used Python to generate figures and animations for the solution.
- Duty
 - Held weekly discussions with student and supervised on [presentations](#), [poster](#) and [final report](#).
 - Provided Python and L^AT_EX support to student participants.

Talks

The Yamabe Problem, *University of Illinois at Urbana Champaign* April 2021
Graduate Geometry and Topology Seminar

Honors & Awards

<i>Wills Prize in Mathematics, University of Liverpool</i> Special honor in the examination for the degree of bachelor of science with honors.	July 2017
<i>IMA Prize, University of Liverpool</i> Outstanding performance in the final year, offered by the Institute of Mathematics and its Applications.	July 2017
<i>University Academic Achievement Award, Xi'an Jiaotong-Liverpool University</i> Top 10% of the program.	2014–2015

Skills

Python & R

- Attended PI4 Bootcamp and did a project regarding [goodreads book analysis](#).
- Simulated solutions of a Nonlinear Schrödinger Equation and generated graphics for the solutions.

Mathematica

Services & Enrichment

<i>PI4 Computational Bootcamp, University of Illinois at Urbana Champaign</i> Focused on Python and R for data science applications and did a project regarding goodreads book analysis .	June 2020
<i>Staff-Student Liaison Committee Member, University of Liverpool</i> Worked as a course representative. Offered student perspective on the Mathematics department and contributed to improvements of the department.	2016–2017