Curriculum Vitae
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Personal Information

Name: Yumin Shen
Email: shen266@math.wisc.edu

Education

University of Wisconsin–Madison Madison, WI, USA	2024 – Now
Master of Arts in Mathematics	(Expected June 2025)
The Ohio State University Columbus, OH, USA	2022 – 2024
Bachelor of Science in Mathematics, *Summa Cum Laude*, May 2024	
Shanghai University Shanghai, China	2019 – 2022
Transferred out, majored in Telecommunication Engineering	

Awards, Competitions, Honors, and Scholarships

2024 Grace Bareis Math Prize Scholarship	\$300
Department of Mathematics, The Ohio State University	
2024 Gordon Mathematics Competition	1st Place
Department of Mathematics, The Ohio State University	
Undergraduate Research Scholarship	\$1875
Department of Mathematics, The Ohio State University	
2023 Grace Bareis Math Prize Scholarship	\$200
Department of Mathematics, The Ohio State University	
2023 Gordon Mathematics Competition	2nd Place
Department of Mathematics, The Ohio State University	
13$^{\text{th}}$ China Mathematics Competition for College Students	1st Prize
Chinese Math Society	
13$^{\text{th}}$ Shanghai Mathematics Competition for College Students	1st Prize
Shanghai Math Society	
2021 Shanghai University Mathematics Competition	2nd Prize
Department of Mathematics, Shanghai University	
2020 Shanghai University Physics Competition	2nd Prize
Department of Physics, Shanghai University	
12$^{\text{th}}$ China Mathematics Competition for College Students	3rd Prize
Chinese Math Society	
12$^{\text{th}}$ Shanghai Mathematics Competition for College Students	3rd Prize
Shanghai Math Society	
2020 Shanghai University Mathematics Competition	3rd Prize
Department of Mathematics, Shanghai University	
Academic Scholarship	¥500
Shanghai University	

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[1]Last Modified: September 28, 2024

Employment

At University of Wisconsin-Madison
Fall 2024: Grader for Math 322: Applied Mathematical Analysis (Partial Differential Equations and Special Functions)
Instructor: Saverio Spagnolie

Researches and Workshops

Anosov magnetic flows on surfaces, Joint with James Marshall Reber   June 2024
Organized by OSU Cycle Program at The Ohio State University   [arXiv: 2406.18735]

Knots and Graphs
Organized by Dr. Sergei Chmutov at The Ohio State University   [Link to Webpage]

Presentations and Posters

"Universal Cover of Non-Positively Curved Surface"   [Slides]
Directed Reading Program SP24

Gave a presentation on Cartan-Hadamard Theorem and Hadamard-Lévy Theorem. Introduced enough background knowledge and emphasized on applications of covering space.

"Some Algebraic Structures of Links: from 0 to ε"   [Slides]
Knots and Graphs 2023

Gave a presentation introducing braid group and its representation in Temperley-Lieb algebra, and get Jones polynomial in an algebraic way. Enough background knowledge was introduced.

"Alternating knots and Tait Conjecture"   [Slides]
Knots and Graphs 2023

Gave a presentation on alternating knots and Tait conjecture as an application of Jones Polynomial.

"Fundamental Theorem of Riemannian Geometry"   [Poster]
Cycle Conference 2023

Made a poster on smooth manifolds, tangent bundles, vector fields, Riemannian manifolds, affine connection, existence and uniqueness of the Levi-Civita connection, geodesics defined by Euler-Lagrange equation and geodesics defined by affine connection, and their local consistency under Levi-Civita connection.

"The Invariant Subspace Problem"   [Slides]
Directed Reading Program SP23

Gave a presentation on Banach space, bounded linear operator, compact operator, Banach algebra, spectrum of a bounded linear operator, spectral radius formula, eigenvalue of compact operator, and the Lomonosov invariant subspace theorem of compact operators.

"Measure, Integration and Dominated Convergence Theorem"
Directed Reading Program AU22

Gave a chalk talk on Lebesgue measure, integration, Dominated Convergence Theorem and some examples.

Other Skills

Chinese	Native
English	Proficient
Japanese	Elementary Proficiency

Programming languages
C, C++, Python, Matlab, Assembly Languages of AT89C51.