# SHANA YUNSHENG LI

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# **EDUCATION**

University of Illinois Urbana-Champaign 2024 - Now

Ph.D. in Mathematics Advisor: Nathan Dunfield

Southern University of Science and Technology 2022 - 2024

M.Sc in Mathematics (GPA: 3.8/4.0) Advisor: Stavros Garoufalidis

Southern University of Science and Technology 2018 - 2022

B.Sc in Mathematics and Applied Mathematics with Honors (GPA: 3.87/4.0)

# RESEARCH INTEREST

Mathematical Physics; Low-dimensional Topology; Quantum Topology; Knot Theory.

# **PUBLICATIONS**

Autumn 2024	Patterns in $V_2$ -polynomial of knots	arXiv:2409.03557	
		Joint work with Stavros Garoufalidis	
Spring 2024	Algebraic Aspects of Holomorphic Quantum Modular Forms		
	Research in Mathematical S	Sciences. 11 (2024) no. 3, Paper No. 54	
	Joint wor	ck with Ni An and Stavros Garoufalidis	

### NOTES

Spring 2023	Notes of Zelmanov's Algebraic Lectures
Autumn 2021	A Review From Manifolds to Basic de Rham Theory

# **THESIS**

Spring 2024	On the Quantum Modularity Conjecture for Knots
Spring 2022	Foundation of Supergeometry and Its Application in Mathematical Physics

#### **SEMINARS**

Spring 2024	Seminar talk at the Graduate Topology Seminar (SUSTech)
	Topic: The Teichmüller TQFT and the Quantum Modularity Conjecture
Autumn 2021	Reading seminar of Bott & Tu's Differential Forms in Algebraic Topology.
Autumn 2019	Reading seminar of Riehl's Category Theory in Context

# **TEACHING**

Autumn 2022	Teaching	assistant	of MA109	(Advanced	Linear	Algebra)	
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# **AWARDS**

Spring 2024	Outstanding Graduate Graduates Award Outstanding Master Thesis Award	
Autumn 2022 Spring 2022	Outstanding Teaching Assistant Award Outstanding Undergraduate Graduates Award	
Spring 2022	Outstanding Undergraduate Graduates Award Outstanding Undergraduate Thesis Award	

# STUDENT ACTIVITIES

# OUTREACH - PIANO PERFORMANCES

Autumn 2023	"Moment $\cdot$ Eternity" Concert	Steinway Garden in	n Shenzhen Concert Hall
Spring 2022	"Youth Poetry and Music" Chambe	er Music Concert	Shenzhen Concert Hall
Autumn 2021	National Science & Technology Uni	versity Aesthetic Ed	ucation Seminar Concert
		Steinway Garden in	n Shenzhen Concert Hall
Autumn 2020	Lang Lang's Piano Masterclass	SU	JSTech 10th Anniversary
Autumn 2019	Haochen Zhang's Piano Masterclass	3	