

# Hyunki Min

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EMPLOYMENT	<b>Hedrick Assistant Adjunct Professor, UCLA</b> <i>Mentor: Ko Honda</i>	2022 - 2025
	<b>Postdoctoral Associate, MIT</b> <i>Mentor: Lisa Piccirillo</i>	2021 - 2022

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EDUCATION	<b>Ph.D. Mathematics, Georgia Tech</b> <i>Advisor: John Etnyre</i>	2015 - 2021
	<b>B.S. Computer Science and Engineering, Seoul National University</b>	2008 - 2015

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PAPERS	<b>Bordered contact invariants and half Giroux torsion</b> with Konstantinos Varvarezos <a href="#">arXiv:2506.14050</a>	
	<b>Spinal open books and symplectic fillings with exotic fibers</b> with Agniva Roy and Luya Wang <a href="#">arXiv:2410.10697</a>	
	<b>On contact invariants in bordered Floer homology</b> with Konstantinos Varvarezos <a href="#">arXiv:2410.05511</a>	
	<b>Tight contact structures on a family of hyperbolic L-spaces</b> with Isacco Nonino <a href="#">arXiv:2311.14103</a>	
	<b>Spaces of Legendrian cables and Seifert fibered links</b> with Eduardo Fernández <a href="#">arXiv:2310.12385</a>	
	<b>Existence and construction of non-loose knots</b> with Rima Chatterjee, John Etnyre and Anubhav Mukherjee <a href="#">arXiv:2310.04908</a> To appear in <i>IMRN</i>	
	<b>Small symplectic caps and embeddings of homology balls in the complex projective plane</b> with John Etnyre, Lisa Piccirillo and Agniva Roy <a href="#">arXiv:2305.16207</a> Revise and resubmit at <i>Selecta Mathematica</i>	
	<b>The contact mapping class group and rational unknots in lens spaces</b> <i>IMRN, 2024-15 (2024) 11315–11342</i>	
	<b>Non-loose torus knots</b> with John Etnyre and Anubhav Mukherjee <a href="#">arXiv:2206.14848</a> Revise and resubmit at <i>Memoirs of the AMS</i>	
	<b>Strongly fillable contact structures without Liouville fillings</b>	

[arXiv:2205.09912](https://arxiv.org/abs/2205.09912)

**Cabling Legendrian and transverse knots**

with Apratim Chakraborty and John Etnyre

*Journal of Differential Geometry*, 126-1 (2024) 1-48

**On 3-manifolds that are boundaries of exotic 4-manifolds**

with John Etnyre and Anubhav Mukherjee

*Transactions of the AMS*, 375-6 (2022) 4307-4332

**Classification of tight contact structures on surgeries on the figure-eight knot**

with James Conway

*Geometry & Topology*, 24-3 (2020) 1457-1517

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TALKS

AMS Sectional Meeting, Cal Poly	May 2025
Topology seminar, Caltech	April 2025
Topology seminar, Boston College	March 2025
Topology seminar, UGA	November 2024
Topology seminar, KIAS	October 2024
Topology seminar, University of Arkansas	May 2024
Princeton Topology Conference, Princeton University	April 2024
Australian Geometric Topology Webinar, Zoom	Mar 2024
Topology seminar, University of Southern California	November 2023
Topology seminar, Claremont Colleges	November 2023
Topology seminar, UT Austin	September 2023
Graduate Student Topology and Geometry Conference, Harvard University	July 2023
Georgia Topology Conference, University of Georgia	May 2023
AMS Sectional Meeting, Georgia Tech	March 2023
Workshop for Young Symplectic Geometers, Korea	February 2023
G&T Workshop Turkey, Online workshop	December 2021
Boston Graduate Topology Seminar, MIT	November 2021
Informal Symplectic Seminar, MIT	November 2021
Geometry/Topology Seminar, MIT	September 2021
GT GAPS, Online seminar	August 2021
Joint Mathematics Meeting, Online conference	January 2021

Tech Topology Conference, Georgia Tech	December 2020
NCNGT 20, Online conference	June 2020
Topology Seminar, University of Alabama	February 2020
Topology Seminar, Seoul National University	December 2019
Tech Topology Conference, Georgia Tech	December 2019
Topology Seminar, Binghamton University	April 2019
AMS Sectional Meeting, University of Auburn	March 2019
Topology Seminar, University of Georgia	January 2019
Mini-workshop, Seoul National University	January 2019
Tech Topology Conference, Georgia Tech	December 2018

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TEACHING  
UCLA

Math 32B: Multivariable Calculus	Spring 2025
Math 120A: Differential Geometry	Winter 2025
Math 32B: Multivariable Calculus	Winter 2025
Math 132: Complex Analysis for Applications	Fall 2024
Math 132: Complex Analysis for Applications	Spring 2024
Math 110B: Algebra	Winter 2024
Math 132: Complex Analysis for Applications	Winter 2024
Math 31B: Integration and Infinite Series	Fall 2023
Math 33A: Linear Algebra and its Applications	Spring 2023
Math 33B: Differential Equations	Winter 2023
Math 115A: Linear Algebra	Fall 2022

MIT

TA of 18.03: Differential Equations	Spring 2022
TA of 18.02: Multivariable Calculus	Fall 2021

GEORGIA TECH

<b>GRE Math Boot Camp</b>	Summer 2021
Math 2550: Introduction to Multivariable Calculus	Summer 2020
Math 2550: Introduction to Multivariable Calculus	Summer 2019
Math 2551: Multivariable Calculus	Summer 2018
Head TA of Math 2551: Multivariable Calculus	Spring 2021

	Head TA of Math 2551: Multivariable Calculus	Fall 2019
	TA of Math 1554: Linear Algebra	Fall 2020
	TA of Math 2551: Multivariable Calculus	Spring 2020
	TA of Math 2551: Multivariable Calculus	Spring 2019
	TA of Math 1554: Linear Algebra	Fall 2018
	TA of Math 2552: Differential Equations	Fall 2017
	TA of Math 2551: Multivariable Calculus	Summer 2017
	TA of Math 2551: Multivariable Calculus	Spring 2017
	TA of Math 1564: Linear Algebra with Abstract Vector Spaces	Fall 2016
	TA of Math 2552: Differential Equations	Summer 2016
	TA of Math 2551: Multivariable Calculus	Spring 2016
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AWARDS	O'Neill Travel Award, UCLA	Spring 2025
	Top Grad Student Award, Georgia Tech	Spring 2021
	Outstanding Grad Student Instructor Award, Georgia Tech	Spring 2021
	Outstanding TA Award, Georgia Tech	Spring 2021
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MENTORING	<b>REU:</b> 2-bridge knots and the cosmetic surgery conjecture, UCLA <i>Mentees: Michael Huang, Zelong Li, Rahi Tanaz, Chengyi Zhang</i>	Summer 2023
	<b>Direct Reading Program:</b> Legendrian knots, MIT <i>Mentees: Pedro Suarez, Liane Xu</i>	Winter 2021
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SERVICE	<b>Referee work:</b> <i>Journal of Topology, New York Journal of Mathematics, Bullentins of London Mathematical Society, Journal of Symplectic Geometry, Asian Journal of Mathematics, Topology and its Applications, Transactions of the AMS, Journal of European Mathematical Society, Algebraic and Geometric Topology</i>	
	<b>Co-organizer,</b> Geometry & Topology Seminar, UCLA	Spring 2024
	<b>Co-organizer,</b> <a href="#">Special Session at AMS Sectional Meeting</a> , UC Riverside	Fall 2024
	<b>Co-organizer,</b> Geometry & Topology Seminar, UCLA	Fall 2024
	<b>Co-organizer,</b> Geometry & Topology Seminar, MIT	Spring 2022
	<b>Co-organizer,</b> Geometry & Topology Seminar, MIT	Fall 2021
	<b>Co-organizer,</b> <a href="#">Contact and symplectic topology</a> , NCNGT 21	Summer 2021

<b>Co-organizer,</b> <a href="#">Reading groups on filling obstructions</a> , Georgia Tech	<i>Spring 2021</i>
<b>Co-organizer,</b> <a href="#">4-dimensional manifolds reading seminar</a> , Georgia Tech	<i>Fall 2020</i>
<b>Co-organizer,</b> Heegaard Floer homology reading seminar, Georgia Tech	<i>Spring 2020</i>
<b>Organizer,</b> <a href="#">High dimensional contact topology reading seminar</a> , Georgia Tech	<i>Fall 2019</i>
<b>Grad Panel with Visiting Honor Students,</b> Georgia Tech	<i>Spring 2021</i>

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## REFERENCES

**John Etnyre**, Georgia Tech

**Jen Hom**, Georgia Tech

**Ko Honda**, UCLA

**Lisa Piccirillo**, UT Austin

**Klara Grodzinsky (Teaching)**, Georgia Tech

**Guido Montufar (Teaching)**, UCLA

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