

# Hyunki Min

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EMPLOYMENT	Hedrick Assistant Adjunct Professor, UCLA <i>Mentor: Ko Honda</i>	2022 - 2025
	Postdoctoral Associate, MIT <i>Mentor: Lisa Piccirillo</i>	2021 - 2022
EDUCATION	Ph.D. Mathematics, Georgia Tech <i>Advisor: John Etnyre</i>	2015 - 2021
	B.S. Computer Science and Engineering, Seoul National University	2008 - 2015
PAPERS	<b>Cable links of uniformly thick knot types</b> with Rima Chatterjee, John Etnyre and Thomas Rodewald <a href="https://arxiv.org/abs/2507.03185">arXiv:2507.03185</a>	
	<b>Bordered contact invariants and half Giroux torsion</b> with Konstantinos Varvarezos <a href="https://arxiv.org/abs/2506.14050">arXiv:2506.14050</a>	
	<b>Spinal open books and symplectic fillings with exotic fibers</b> with Agniva Roy and Luya Wang <a href="https://arxiv.org/abs/2410.10697">arXiv:2410.10697</a>	
	<b>On contact invariants in bordered Floer homology</b> with Konstantinos Varvarezos <a href="https://arxiv.org/abs/2410.05511">arXiv:2410.05511</a>	
	<b>Tight contact structures on a family of hyperbolic L-spaces</b> with Isacco Nonino <a href="https://arxiv.org/abs/2311.14103">arXiv:2311.14103</a>	
	<b>Spaces of Legendrian cables and Seifert fibered links</b> with Eduardo Fernández <a href="https://arxiv.org/abs/2310.12385">arXiv:2310.12385</a>	
	<b>Existence and construction of non-loose knots</b> with Rima Chatterjee, John Etnyre and Anubhav Mukherjee <i>IMRN, 2025-14 (2025)</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="https://arxiv.org/abs/2305.16207">arXiv:2305.16207</a> To appear in <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	

arXiv:2206.14848

**Strongly fillable contact structures without Liouville fillings**  
arXiv: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

<b>GT GAPS</b> , Online seminar	<i>August 2021</i>
<b>Joint Mathematics Meeting</b> , Online conference	<i>January 2021</i>
<b>Tech Topology Conference</b> , Georgia Tech	<i>December 2020</i>
<b>NCNGT 20</b> , Online conference	<i>June 2020</i>
<b>Topology Seminar</b> , University of Alabama	<i>February 2020</i>
<b>Topology Seminar</b> , Seoul National University	<i>December 2019</i>
<b>Tech Topology Conference</b> , Georgia Tech	<i>December 2019</i>
<b>Topology Seminar</b> , Binghamton University	<i>April 2019</i>
<b>AMS Sectional Meeting</b> , University of Auburn	<i>March 2019</i>
<b>Topology Seminar</b> , University of Georgia	<i>January 2019</i>
<b>Mini-workshop</b> , Seoul National University	<i>January 2019</i>
<b>Tech Topology Conference</b> , Georgia Tech	<i>December 2018</i>

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## TEACHING

UCLA	<b>Math 32B: Multivariable Calculus</b>	<i>Spring 2025</i>
	<b>Math 120A: Differential Geometry</b>	<i>Winter 2025</i>
	<b>Math 32B: Multivariable Calculus</b>	<i>Winter 2025</i>
	<b>Math 132: Complex Analysis for Applications</b>	<i>Fall 2024</i>
	<b>Math 132: Complex Analysis for Applications</b>	<i>Spring 2024</i>
	<b>Math 110B: Algebra</b>	<i>Winter 2024</i>
	<b>Math 132: Complex Analysis for Applications</b>	<i>Winter 2024</i>
	<b>Math 31B: Integration and Infinite Series</b>	<i>Fall 2023</i>
	<b>Math 33A: Linear Algebra and its Applications</b>	<i>Spring 2023</i>
	<b>Math 33B: Differential Equations</b>	<i>Winter 2023</i>
MIT	<b>Math 115A: Linear Algebra</b>	<i>Fall 2022</i>
	<b>TA of 18.03: Differential Equations</b>	<i>Spring 2022</i>
	<b>TA of 18.02: Multivariable Calculus</b>	<i>Fall 2021</i>
GEORGIA TECH	<b>GRE Math Boot Camp</b>	<i>Summer 2021</i>
	<b>Math 2550: Introduction to Multivariable Calculus</b>	<i>Summer 2020</i>
	<b>Math 2550: Introduction to Multivariable Calculus</b>	<i>Summer 2019</i>

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

<b>Co-organizer</b> , Geometry & Topology Seminar, MIT	<i>Fall 2021</i>
<b>Co-organizer</b> , Contact and symplectic topology, NCNGT 21	<i>Summer 2021</i>
<b>Co-organizer</b> , Reading groups on filling obstructions, Georgia Tech	<i>Spring 2021</i>
<b>Co-organizer</b> , 4-dimensional manifolds reading seminar, Georgia Tech	<i>Fall 2020</i>
<b>Co-organizer</b> , Heegaard Floer homology reading seminar, Georgia Tech	<i>Spring 2020</i>
<b>Organizer</b> , High dimensional contact topology reading seminar, 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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