Department of Mathematics University of California Los Angeles CA 90095 hkmin27@math.ucla.edu https://hkmin27.github.io/

## Hyunki Min

| EMPLOYMENT | Hedrick Assistant Adjunct Professor, UCLA Mentor: Ko Honda                             | 2022 - 2025 |
|------------|--|-------------|
|            | Postdoctoral Associate, Massachusetts Institute of Technology  Mentor: Lisa Piccirillo | 2021 - 2022 |
| EDUCATION  | Ph.D. Mathematics, Georgia Institute of Technology Advisor: John Etnyre                | 2015 - 2021 |
|            | B.S. Computer Science and Engineering, Seoul National University                       | 2008 - 2015 |

#### Papers

Spinal open books and symplectic fillings with exotic fibers with Agniva Roy and Luya Wang arXiv:2410.10697

On contact invariants in bordered Floer homology with Konstantino Varvarezos arXiv:2410.05511

Tight contact structures on a family of hyperbolic L-spaces with Isacco Nonino arXiv:2311.14103

Spaces of Legendrian cables and Seifert fibered links with Eduardo Fernández arXiv:2310.12385

Existence and construction of non-loose knots with Rima Chatterjee, John Etnyre and Anubhav Mukherjee arXiv:2310.04908

Small symplectic caps and embeddings of homology balls in the complex projective plane with John Etnyre, Lisa Piccirillo and Agniva Roy arXiv:2305.16207

The contact mapping class group and rational unknots in lens spaces *IMRN*, 2024-15 (2024) 11315–11342

Non-loose torus knots with John Etnyre and Anubhav Mukherjee arXiv:2206.14848

Strongly fillable contact structures without Liouville fillings ar Xiv: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 & Toplogy, 24-3 (2020) 1457-1517

| Talks | Topology seminar, KIAS  | October 2024      |
|-------|---|-------------------|
|       | Topology seminar, University of Arkansas                              | May 2024          |
|       | Princeton Topology Conference, Princeton University                   | April 2024        |
|       | Australian Geometric Tropology 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 | versity 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 |
| Teaching     |   |               |
| UCLA         | Math 32B: Multivariable Calculus                  | Spring 2024   |
|              | Math 120A: Differential Geometry                  | Winter 2024   |
|              | Math 32B: Multivariable Calculus                  | Winter 2024   |
|              | 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 | GRE Math Boot Camp                                | 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   |
| Awards    | Top Grad Student Award, Georgia Tech  | Spring 2021   |
|           | Outstanding Grad Student Instructor Award, Georgia Tech   | Spring 2021   |
|           | Outstanding TA Award, Georgia Tech  | Spring 2021   |
| Mentoring | REU: 2-bridge knots and the cosmetic surgery conjecture, UCLA Mentees: Michael Huang, Zelong Li, Rahi Tanaz, Chengyi Zhang  | Summer 2023   |
|           | <b>Direct Reading Program:</b> Legendrian knots, MIT Mentees: Pedro Suarez, Liane Xu  | Winter 2021   |
| C         |   |   |
| SERVICE   | Referee work: Journal of Topology, New York Journal of Mathematics,<br>Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A<br>Mathematics, Topology and its Applications, Transactions of the AMS, Journ<br>Mathematical Society   |   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A<br>Mathematics, Topology and its Applications, Transactions of the AMS, Journ  | nal of European   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A<br>Mathematics, Topology and its Applications, Transactions of the AMS, Journ<br>Mathematical Society  | nal of European Spring 2024   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A<br>Mathematics, Topology and its Applications, Transactions of the AMS, Journ<br>Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA   | nal of European Spring 2024 Fall 2024   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Special Session at AMS Sectional Meeting, UC Riverside   | nal of European Spring 2024 Fall 2024 Fall 2024   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Special Session at AMS Sectional Meeting, UC Riverside  Co-organizer, Geometry & Topology Seminar, UCLA  | Spring 2024 Fall 2024 Fall 2024 Spring 2022   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Special Session at AMS Sectional Meeting, UC Riverside  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, MIT  | Spring 2024 Fall 2024 Fall 2024 Spring 2022 Fall 2021                                   |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Geometry & Topology Seminar, MIT   | Spring 2024 Fall 2024 Fall 2024 Spring 2022 Fall 2021 Summer 2021                       |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Contact and symplectic topology, NCNGT 21  | Spring 2024 Fall 2024 Fall 2024 Spring 2022 Fall 2021 Summer 2021 Spring 2021           |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Contact and symplectic topology, NCNGT 21  Co-organizer, Reading groups on filling obstructions, Georgia Tech  | Spring 2024 Fall 2024 Fall 2024 Spring 2022 Fall 2021 Summer 2021 Spring 2021 Fall 2020 |
| SERVICE   | Bullentins of London Mathematical Society, Journal of Symplectic Geometry, A Mathematics, Topology and its Applications, Transactions of the AMS, Journ Mathematical Society  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, UCLA  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Geometry & Topology Seminar, MIT  Co-organizer, Contact and symplectic topology, NCNGT 21  Co-organizer, Reading groups on filling obstructions, Georgia Tech  Co-organizer, 4-dimensional manifolds reading seminar, Georgia Tech |   |

Jen Hom, Georgia Tech

Ko Honda, UCLA

### Lisa Piccirillo, MIT

Klara Grodzinsky (Teaching), Georgia Tech