

# Changying Ding

Department of Mathematics  
Vanderbilt University  
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<https://cding.me>

## Education

Ph.D. in Mathematics, Vanderbilt University, Expected May 2023.

Advisor: Jesse Peterson.

B.S. in Mathematics, Central South University, China, May 2018.

## Publication/Preprints

1. C. Ding: *First  $\ell^2$ -Betti numbers and proper proximality*, arXiv:2211.05951, preprint 2022.
2. C. Ding, S. Kunnawalkam Elayavalli: *An upgrading theorem for properly proximal von Neumann algebras*, arXiv:2211.05298, preprint 2022.
3. C. Ding, S. Kunnawalkam Elayavalli, J. Peterson: *Properly proximal von Neumann algebras*, arXiv:2204.00517, preprint 2022, to appear in Duke Mathematical Journal.
4. C. Ding, S. Kunnawalkam Elayavalli: *Proper proximality for various families of groups*, arXiv:2107.02917, preprint 2021.

## Research Interests

Operator algebras, ergodic theory, geometric group theory, and operator space theory.

## Talks

Operator Algebras Seminar, Purdue University, March 2023.

Workshop on Von Neumann Algebras and Geometric Group Theory, University of California, San Diego, February 2023.

Topology & Group Theory Seminar, Vanderbilt University, February 2023.

Subfactor Seminar, Vanderbilt University, January 2023.

AMS special session on advances of operator algebras, Joint Mathematics Meetings 2023, January 2023.

Subfactor Seminar, Vanderbilt University, November 2022.

Functional Analysis Seminar, University of California, Los Angeles, November 2022.

East Coast Operator Algebras Symposium, Michigan State University, October 2022.

Dalian University of Technology, October 2022.

Operator Theory Seminar, University of Iowa, October 2022.

Subfactor Seminar, Vanderbilt University, September 2022.

Great Plains Operator Theory Symposium, Washington University in St. Louis, May 2022.

Functional Analysis Seminar, University of California, San Diego, May 2022.

Subfactor Seminar, Vanderbilt University, November 2021.

## Teaching

Teaching assistant <i>MATH 1300 Accelerated Single-Variable Calculus II</i>	Spring 2023 Vanderbilt University
Instructor <i>MATH 1005 Pre-calculus</i>	Fall 2022 Vanderbilt University
Teaching assistant <i>MATH 2400 Differential Equations with Linear Algebra</i>	Spring 2022 Vanderbilt University
Instructor <i>MATH 1005 Pre-calculus</i>	Fall 2021 Vanderbilt University
Teaching assistant <i>MATH 2400 Differential Equations with Linear Algebra</i>	Spring 2021 Vanderbilt University
Teaching assistant <i>MATH 1300 Accelerated Single-Variable Calculus I</i>	Fall 2020 Vanderbilt University
Teaching assistant <i>MATH 2810 Probability and Statistics for Engineering</i>	Spring 2020 Vanderbilt University
Teaching assistant <i>MATH 2810 Probability and Statistics for Engineering</i>	Fall 2019 Vanderbilt University