

PROFESSIONAL PREPARATION

Northwestern University	Evanston, IL	Journalism and Math	B.S.	2011
University of California, Riverside	Riverside, CA	Math	M.S./Ph.D.	2014/2018
Vanderbilt University	Nashville, TN	Math	post-doc	2018–2020

APPOINTMENTS

- US Junior Oberwolfach Fellow, Mathematisches Forschungsinstitut Oberwolfach, Germany (Oct. 27 – Nov. 2, 2019)
- Post-Doctoral Scholar, Vanderbilt University (2019–2020).
- Research Assistant Professor, Vanderbilt University (2018–2019).
- Teaching Assistant, UC Riverside Math Department (Spring 2018, Winter 2018, Fall 2017, Spring 2017, Winter 2017, Fall 2016, Fall 2015, Summer 2015, Spring 2015, Fall 2014, Winter 2014, Fall 2013, Summer 2013, Winter 2013, Fall 2012).
- Primary Instructor, UC Riverside Math Department (Summer 2017, Summer 2016).
- Teaching Assistant, UC Riverside Philosophy Department (Winter 2015, Spring 2014).

PUBLICATIONS

- Azzali, S.; Browne, S.; Gomez Aparicio, M. P.; Ruth, L. C.; Wang, H. (in preparation). *K-homology and K-theory of pure braid groups*.
- Ishan, I.; Peterson, J.; Ruth, L. C. (2019). *Von Neumann equivalence and properly proximal groups*. Accessible online at arxiv.org/abs/1910.08682
- Ruth, L. C. (2019, submitted). *Representing some II_1 factors in $L^2(\Lambda \backslash G)$* . Accessible online at arxiv.org/abs/1907.07641
- Ruth, L. C. (2019, submitted). *The product of lattice covolume and discrete series formal dimension: p -adic $GL(2)$* . Accessible online at arxiv.org/abs/1901.11501
- Ruth, L. C. (2018). *Two New Settings for Examples of von Neumann Dimension*. UC Riverside. ProQuest ID: Ruth_ucr_0032D_13412. Merritt ID: [ark:/13030/m5cp21s5](https://arxiv.org/abs/1811.11749). Accessible online at <https://escholarship.org/uc/item/3wg796hm> or <https://arxiv.org/abs/1811.11749>

AWARDS / FELLOWSHIPS / TRAVEL GRANTS

- 2020 Summer Research in Mathematics (SWiM) Grant, Mathematical Sciences Research Institute, Berkeley, California (meals, lodging, and travel expenses for two weeks of collaboration with S. Azzali, S. Browne, M. P. Gomez Aparicio, and H. Wang, plus follow-up travel funding)
- American Mathematical Society Travel Grants (\$3,300 for 2018 International Congress of Mathematicians, \$500 for 2018 Joint Mathematics Meeting, \$250 for Spring 2018 Central Sectional Meeting).
- Dissertation Year Program Fellowship, UC Riverside Graduate Division (\$7,200 for Fall 2016).
- Outstanding Teaching Award, awarded by the UC Riverside Teaching Assistant Development Program (2015–2016).
- Graduate Research Mentoring Program Fellowship, UC Riverside Graduate Division (\$10,800 for Spring 2016 and Winter 2016).
- Early Promise in the Graduate Career Award, UC Riverside Math Department (\$300 for Spring 2014).
- Chancellor’s Distinguished Fellowship, UC Riverside Graduate Division (stipends, TAships, and tuition/fee remissions).

SYNERGISTIC ACTIVITIES

- Co-organizer, AMS Special Session on Advances in Operator Algebras, Joint Mathematics Meeting, Denver, Colorado, USA (January 2020). *Responsibilities include selecting the speakers and running the session.*
- Co-organizer, Informal Quantum Computing Seminar, Vanderbilt University (2019–2020). *Responsibilities include giving an introductory talk in the Vanderbilt Undergraduate Math Seminar and meeting regularly with interested undergraduates.*
- Co-organizer, Young Mathematicians in C^* -algebras, University of Copenhagen, Denmark (August 2019). *Responsibilities included selecting speakers. My primary individual responsibility was to identify candidates for our senior female speaker, send out the invitations, then coordinate with the senior female speaker who accepted our invitation.*
- Co-organizer, AMS Special Session on Quantum Symmetries: Subfactors and Fusion Categories, Joint Mathematics Meeting, Baltimore, Maryland, USA (January 2019). *Responsibilities included selecting speakers and running the session.*

- Co-organizer, Learning Seminar on Operator Algebras and Discrete Groups, Vanderbilt University (2018–2019). *Responsibilities included giving talks, suggesting topics, and maintaining the website, accessible at my.vanderbilt.edu/oadglearn. The purpose of this seminar was to facilitate dialogue between group theorists and operator algebraists in the early stages of their careers.*
- Department-appointed mentor to new math graduate student teaching assistants at UC Riverside (Fall 2017). *Responsibilities included meeting regularly with mentees, as well as observing the mentees during their discussion sections and providing feedback. Mentors also represent the Math Department at the Graduate School Information Day hosted by UC Riverside's College of Natural and Agricultural Sciences on Nov. 1. This day of activities was designed to encourage undergraduate students to apply for graduate school in the sciences.*
- President of UC Riverside's Student Chapter of the Association for Women in Mathematics (Fall 2015 – Spring 2016). *Responsibilities included organizing three events: one UCR Math Club talk, accessible to undergraduates, presented by a female professor of mathematics from a nearby university; one panel for undergraduates on how to apply for graduate school; and one meet-and-greet lunch for undergraduates and graduates.*

PRESENTATIONS

- Invited talks:
 - Session on Advances in Operator Algebras, AMS Southeastern Sectional Meeting, University of Virginia, USA, March 13–15, 2020
 - Analysis Seminar, University of Tennessee Knoxville, USA, Sept. 25, 2019
 - Summer Informal Regional Functional Analysis Seminar, Texas A&M University, USA, July 26–28, 2019
 - Noncommutative Geometry Seminar, Pennsylvania State University, USA, March 14, 2019
 - (Sub)factors in Maui, USA, May 23, 2018
 - Subfactors Seminar, Vanderbilt University, Nashville, USA, March 30, 2018
 - Session on Advances in Operator Algebras, Joint Mathematics Meeting, San Diego, USA, Jan. 10–13, 2018
 - Number Theory Seminar, UC San Diego, USA, Nov. 16, 2017
 - Session on Advances in Operator Algebras, AMS Western Sectional Meeting, UC Riverside, USA, Nov. 4–5, 2017
 - Functional Analysis Seminar, UC Los Angeles, USA, Oct. 25, 2017
 - Operator Algebras Seminar, Purdue University, USA, Oct. 17, 2017
 - Operator Algebras Seminar, UC San Diego, USA, Aug. 30, 2017
 - Session on von Neumann algebras, Mathematical Congress of the Americas, Montreal, Canada, July 24–28, 2017

- Contributed talks:
 - Oberwolfach Workshop: Subfactors and Applications, Germany, Oct. 27 – Nov. 2, 2019
 - Operator Algebras, Groups, and Applications to Quantum Information (conference), Institute of Mathematical Sciences, Madrid, Spain, June 17–21, 2019
 - Young Mathematicians in C^* -Algebras / Young Women in C^* -Algebras, KU Leuven, Belgium, August 11–17, 2018
 - Poster session, ICM Operator Algebras Satellite Conference, Florianopolis, Brazil, July 26–30, 2018
 - Junior Seminar, Trimester Program in Von Neumann Algebras, Hausdorff Research Institute for Mathematics, Bonn, Germany, June 29, 2016
 - 9th Annual Women in Mathematics in Southern California Symposium, Pomona College, USA, Nov. 7, 2015

CONFERENCES / WORKSHOPS / INSTITUTES

- Oberwolfach Workshop: Subfactors and Applications, Germany, Oct. 27 – Nov. 2, 2019
- Classification Problems in von Neumann Algebras, Banff International Research Station, Canada, Sept. 29 – Oct. 4, 2019
- Operator Algebras, Groups, and Applications to Quantum Information (conference), Institute of Mathematical Sciences, Madrid, Spain, June 17–21, 2019
- LG&TBQ (conference on geometry, topology, and LGBTQ+ community), University of Michigan, USA, June 10–14, 2019
- Women in Operator Algebras, Banff International Research Station, Canada, Nov. 4–9, 2018
- Workshop on Subfactors and Fusion Categories, Banff International Research Station, Canada, Oct. 14–19, 2018
- Young Mathematicians in C^* -Algebras / Young Women in C^* -Algebras, KU Leuven, Belgium, Aug. 11–17, 2018
- International Congress of Mathematicians, Rio de Janeiro, Brazil, Aug. 1–9, 2018
- ICM Operator Algebras Satellite Conference, Rio de Janeiro, Brazil, July 26–30, 2018
- (Sub)factors in Maui, USA, May 23, 2018
- Quantitative Linear Algebra Workshop II: Approximation Properties in Operator Algebras and Ergodic Theory, Institute for Pure and Applied Mathematics, Los Angeles, USA, April 30 – May 5, 2018
- Classification of Group von Neumann Algebras, American Institute of Mathematics, San Jose, California, USA, Jan. 29 – Feb. 2, 2018

- Mathematical Congress of the Americas, Montreal, Canada, July 24–28, 2017
- Representation Theory of p -adic Groups, Indian Institute of Science Education and Research, Pune, India, July 10–19, 2017
- West Coast Lie Theory Workshop, UC San Diego, USA, June 3–4, 2017
- Analytic Number Theory Program, Mathematical Sciences Research Institute, California, USA, Feb. 2–10, 2017
- Master Lectures by Vaughan Jones in Subfactors and Mathematical Physics, Tsinghua International Mathematics Forum, Sanya, China, Dec. 19–23, 2016
- Introduction to Character Theory and the McKay Conjecture, Summer School, Mathematical Sciences Research Institute, California, USA, July 11–22, 2016
- Hausdorff Trimester Program in von Neumann Algebras, Hausdorff Institute for Mathematics, Bonn, Germany, May 15 – July 11, 2016
- Non-Commutative Geometry and Operator Algebras Spring Institute, Vanderbilt University, Nashville, Tennessee, USA, May 2–8, 2014