Tomas Miguel Rodriguez

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Department of Mathematics and Statistics, Kenyon College, Gambier, OH 43022

EDUCATION

University of Toledo *2024*
Ph.D. Mathematics, Advisor: Sönmez Şahutoğlu Toledo, OH

Indiana University - Purdue University Indianapolis *2018*
M.S. Mathematics Indianapolis, IN

De La Salle University *2015*
M.S. Mathematics Manila, Philippines

Ateneo de Davao University *2012*
B.S. Mathematics Davao, Philippines

PROFESSIONAL EXPERIENCE

Kenyon College *2024 - Present*
Visiting Assistant Professor Gambier, OH

Johns Hopkins Center for Talented Youth *2019 - 2024*
Instructor Baltimore, MD

RESEARCH INTERESTS

Operator theory on function spaces: Toeplitz and Hankel operators on reproducing kernel Hilbert spaces of holomorphic functions in several complex variables.

PREPRINTS/PUBLICATIONS

1. (with Trieu Le and Sönmez Şahutoğlu) *On compactness of products of Toeplitz operators*, submitted; arXiv:2401.04869

2. (with Sönmez Şahutoğlu) *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$*, Proc. Amer. Math. Soc. Ser. B. **11** (2024), 406-421; pdf

3. (with Chanaka Kottegoda and Trieu Le) *Square roots of weighted shifts of multiplicity two*, Canadian Mathematical Bull. **66** (2023), no. 3, 791-807; pdf

$*$ Tomas Miguel Rodriguez, *Compactness of Toeplitz operators on pseudoconvex domains in $\mathbb{C}^n$*, Ph.D. thesis, University of Toledo, OH, 2024

TEACHING EXPERIENCE

Kenyon College

• Math 111: Calculus 1 *Fall 2024*

Johns Hopkins Center for Talented Youth

• Inductive and Deductive Reasoning *Summer 2019, Summer 2022, Summer 2023, Summer 2024*

University of Toledo - Instructor

• Math 1330: Trigonometry *Spring 2021, Fall 2021, Fall 2022, Fall 2023, Spring 2024*
• Math 1320: College Algebra *Fall 2020*

University of Toledo - Teaching Assistant

• Math 1730: Calculus for Business *Spring 2019*
• Math 1750: Calculus for Life Sciences *Fall 2018, Spring 2022, Spring 2023*
• Math 1760: Calculus 1 *Fall 2019, Spring 2020*

AWARDS

- **Outstanding Graduate Student Award** *2024*
  University of Toledo
  ◦ Given to graduate students who have demonstrated excellence in research and/or scholarship in their graduate program.

- **Research Excellence Award** *2024*
  University of Toledo - Department of Mathematics and Statistics
  ◦ Given to a graduate student in recognition of valuable contributions to research excellence.

CONFERENCE/SEMINAR PRESENTATIONS

1. *On compactness of products of Toeplitz operators*, Joint Mathematics Meeting - AMS Special Session on New Directions in Harmonic Analysis, Seattle, WA, January 2025. (Contributed Talk) *Upcoming*

2. *Square roots of weighted shifts of multiplicity two,* Joint Mathematics Meeting - AMS Special Session on New Faces in Operator Theory, Seattle, WA, January 2025. (Contributed Talk) *Upcoming*

3. *On compactness of products of Toeplitz operators,* Great Plains Operator Theory Symposium 44, University of Nebraska-Lincoln, June 2024. (Contributed Talk)

4. *On compactness of products of Toeplitz operators,* Southeastern Analysis Meeting 40, University of Florida, March 2024. (Contributed Talk)

5. *On compactness of Toeplitz operators with continuous symbols on domains in $\mathbb{C}^n$,* Department of Mathematical Sciences - Colloquium Series, Ball State University, February 2024. (Colloquium Talk)

6. *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$,* Joint Mathematics Meeting - AMS Special Session on New Faces in Operator Theory and Function Theory, San Francisco, CA, January 2024. (Contributed Talk)

7. *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$,* Midwestern Workshop on Asymptotic Analysis, Indiana University-Purdue University Indianapolis, October 2023. (Poster Presentation)

8. *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$,* Analysis and PDE Seminar, Clemson University, September 2023. (Invited Talk)

9. *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$,* Midwest Several Complex Variables Conference, Ohio State University, April 2023. (Poster Presentation)

10. *Compactness of Toeplitz operators with continuous symbols on pseudoconvex domains in $\mathbb{C}^n$,* Southeastern Analysis Meeting 39, Clemson University, March 2023. (Contributed Talk)

11. *Square roots of weighted shifts of multiplicity two,* Ohio Section Fall Meeting - Mathematical Association of America, Cedarville University, October 2022. (Contributed Talk)

MEETINGS AND CONFERENCES

1. Joint Mathematics Meeting - AMS Special Session on New Faces in Operator Theory, Seattle, WA, January 2025.

2. Midwestern Workshop on Asymptotic Analysis, Indiana University, October 2024

3. Great Plains Operator Theory Symposium 44, University of Nebraska-Lincoln, June 2024.

4. Southeastern Analysis Meeting 40, University of Florida, March 2024

5. Joint Mathematics Meeting - AMS Special Session on New Faces in Operator Theory and Function Theory, San Francisco, CA, January 2024.

6. Midwestern Workshop on Asymptotic Analysis, Indiana University-Purdue University Indianapolis, October 2023

7. 49th Annual Mathematics Conference, Miami University, September 2023

8. Midwest Several Complex Variables Conference, Ohio State University, April 2023

9. Southeastern Analysis Meeting 39, Clemson University, March 2023

10. Ohio Section Fall Meeting - Mathematical Association of America, Cedarville University, October 2022

11. Midwestern Workshop on Asymptotic Analysis, Purdue University - Fort Wayne, October 2022

12. Midwest Dynamical Systems Conference, Indiana University-Purdue University Indianapolis, November 2022

13. Midwest Several Complex Variables, Notre Dame University, April 2022

14. Midwest Several Complex Variables, University of Michigan - Dearborn, October 2019

OUTREACH

• **Math Corps**   *Summer 2024*
  University of Toledo

  ◦ It is a month-long summer camp for middle school students and high school mentors from under-served communities in the Toledo, OH area.

SERVICE

• **Vice President**   *Fall 2021 - Spring 2024*
  American Mathematical Society Graduate Student Chapter - University of Toledo

• **Graduate Student Advisory Committee**   *Fall 2021 - Spring 2024*
  Natural Science and Mathematics (NSM) - University of Toledo

• **NSM Graduate Student Representative**   *Fall 2020 - Spring 2021*
  Graduate Student Association - University of Toledo

REFERENCES

1. **Sönmez Şahutoğlu**
   Professor, Department of Mathematics and Statistics
   University of Toledo
   Email: sonmez.sahutoglu@utoledo.edu
   Phone: 419-530-3248
   Relationship: Research Advisor

2. **Geoffrey Martin**
   Professor and Department Chair, Department of Mathematics and Statistics
   University of Toledo
   Email: geoffrey.martin@utoledo.edu
   Phone: 419-530-2569
   Relationship: Supervisor

3. **Carol Schumacher**
   Professor, Department of Mathematics and Statistics
   Kenyon College
   Email: schumacherc@kenyon.edu
   Phone: 740-427-5265
   Relationship: Mentor

4. **Joshu Fisher**
   Program Manager, Johns Hopkins Center for Talented Youth
   Johns Hopkins University
   Email: jkfisher@jhu.edu
   Phone: 667-208-8645
   Relationship: Supervisor

5. **Trieu Le**
   Professor, Department of Mathematics and Statistics
   University of Toledo
   Email: trieu.le2@utoledo.edu
   Phone: 419–530–2790
   Relationship: Mentor and Collaborator

6. **Željko Čučković**
   Professor, Department of Mathematics and Statistics
   University of Toledo
   Email: zeljko.cuckovic@utoledo.edu
   Phone: 419-530-2132
   Relationship: Mentor