
Arundhathi Krishnan | Assistant Professor

CONTACT
INFORMATION

Department of Mathematics and Computer Studies
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EMPLOYMENT

Mary Immaculate College , Ireland Assistant Professor	September 2023– Present
Munster Technological University , Ireland Assistant Lecturer	January 2023– August 2023
University of Waterloo , Canada Postdoctoral Fellow	January 2021– December 2022
University College Cork , Ireland Postdoctoral Fellow	October 2018– December 2020
Indian Statistical Institute , Bangalore Visiting Postdoctoral Scientist	November 2017– September 2018

RESEARCH
INTERESTS

Operator algebras with a focus on noncommutative probability.

EDUCATION

Indian Institute of Technology Madras , Chennai Ph.D., Mathematics Thesis: Pseudospectrum of an element of a Banach algebra	February 2018
Indian Institute of Technology Madras , Chennai M.Sc., Mathematics CGPA : 9.5/10	2012

PUBLICATIONS

- Arundhathi Krishnan, *A central limit theorem for the Thompson group F* , Indiana Univ. Math. J. **74** (2025), 1393–1422.
- Claus Köstler, Arundhathi Krishnan and Stephen J. Wills, *Markovianity and the Thompson monoid F^+* , Journal of Functional Analysis **284** (2023), no. 6 109818, ISSN 0022-1236, doi:<https://doi.org/10.1016/j.jfa.2022.109818>.
- Claus Köstler and Arundhathi Krishnan, *Markovianity and the Thompson Group F* , SIGMA **18** (2022), 083, 27 pages, doi:<https://doi.org/10.3842/SIGMA.2022.083>.
- Arundhathi Krishnan and S. H. Kulkarni, *Pseudospectra of elements of reduced Banach algebras II*, Funct. Anal. Approx. Comput. **10** (2018), no. 2, 33–45.
- Arundhathi Krishnan and S. H. Kulkarni, *Pseudospectra of elements of reduced Banach algebras*, Adv. Oper. Theory **2** (2017), no. 4, 475–493, doi:[10.22034/aot.1702-1112](https://doi.org/10.22034/aot.1702-1112).
- Arundhathi Krishnan and S. H. Kulkarni, *Pseudospectrum of an element of a Banach algebra*, Oper. Matrices **11** (2017), no. 1, 263–287, doi:[10.7153/oam-11-18](https://doi.org/10.7153/oam-11-18).

PREPRINTS

- Rolf Gohm, Claus Köstler, and Arundhathi Krishnan, *The Thompson group F from the viewpoint of noncommutative probability*, Preprint in preparation.

UPCOMING AND
RECENT TALKS

- Analysis Seminar, New Mexico State University (online), April 2026.
- UK Operator Algebras Conference, Queen's University Belfast, July 2025.
- Rutgers Experimental Mathematics Seminar, Rutgers University, March 2025.
- New trends at the intersection of quantum information theory, quantum groups and operator algebras, Isaac Newton Institute for Mathematical Sciences, Cambridge, December 2024
- Irish Committee for Equality, Diversity and Inclusion in Mathematics Seminar, March 2024.

INVITED TALKS

- Women in Operator Algebra 3, Banff International Research Station, June 2023.
- Facets of Operator Algebras, Canadian Mathematical Society Winter Meeting, December 2022.
- East Coast Operator Algebra Symposium, Michigan State University, October 2022.
- BCRI Mini-Symposium Noncommutative Probability and Quantum Information, University College Cork, October 2022.
- Invited talk, Mathematical Analysis and its Applications, Central University of Kerala, October 2021.
- Invited talk, Irish Mathematical Society Annual Scientific Meeting (virtual), Dublin City University, January 2021.
- "Markovianity and the Thompson Monoid F^+ ", participant talk at Autumn School on Multipliers in Noncommutative analysis and their applications, Laboratoire des mathématiques de Besançon, Besançon, France, November 2019.

SEMINAR TALKS

- Analysis Seminar, University of Waterloo, July 2023.
- Analysis Seminar, University of Glasgow, May 2023.
- Weekly Learning Seminar on Monoids, University of Waterloo, February – April 2021.
- Analysis Seminar (virtual), University of Glasgow, October 2020.
- Noncommutative Probability Seminar, University College Cork, January 2020.
- Analysis Seminar, University College Dublin, November 2019.
- Mathematics Seminar, University College Cork, January 2019.

GRANTS AND
TRAVEL AWARDS

- Travel Grant, New trends at the intersection of quantum information theory, quantum groups and operator algebras, Isaac Newton Institute for Mathematical Sciences, Cambridge, MIC Staff Conference Fund (**December 2024**).
- Travel Grant, ‘Women in Operator Algebras 3’ (EUR 1000), Clay Mathematics Institute (**June 2023**).
- Irish Research Council Postdoctoral Direct Research Expenses (EUR 10,000) (**2018-2020**)
- Per diem Conference Grant (USD 725), Quantum Symmetries Program at MSRI (**January 2020**)
- International Conference Grant (INR 150,000), IIT Madras (**2017**)
- Travel Grant (USD 2080), International Workshop on Operator Theory and Applications (**2016**)
- Travel Grant (INR 20,839), IIT Madras Alumni Association (**2016**)

OTHER
QUALIFICATIONS

- Digital Badge, Universal Design for Teaching and Learning, National Forum, February 2025.
- Digital Badge, Essentials of Teaching and Learning Online, University of Limerick, December 2024.
- Postgraduate Certificate in Teaching and Learning in Higher Education at University College Cork, October 2020.

LINKS

- [Research Gate](#)
- [Google Scholar](#)

REFERENCES

S. H. Kulkarni (PhD Advisor) shk@iitpkd.ac.in	Department of Mathematics, IIT Palakkad Palakkad, India
Claus Köstler claus@ucc.ie	School of Mathematical Sciences, University College Cork Cork, Ireland
Stephen Wills s.wills@ucc.ie	School of Mathematical Sciences, University College Cork Cork, Ireland
Alexandru Nica anica@uwaterloo.ca	Department of Pure Mathematics, University of Waterloo Ontario, Canada
Blake Madill (Teaching) bmadill@uwaterloo.ca	Department of Pure Mathematics, University of Waterloo Ontario, Canada

SERVICE

Reviewer Duties

- Annals of the Academy of Romanian Scientists: Series on Mathematics and its Applications.
- Journal of the Australian Mathematical Society
- The Journal of Analysis
- Mathematical Reviews
- zbMATH Open

Mentorship

- Junior Mentor in the [Operator Algebras Mentor Network](#), 2020 – Present.
- Board Member in the [Operator Algebras Mentor Network](#), September 2025 – Present.

Outreach lectures and talks

- Staff for UCC Mathematics Enrichment Programme (for school students), 2018-2020, 2022-present.
- Panelist, “Career Panel”, YMC*A 2023 Leuven, May 2023.
- Panelist, “Intersectionality in Operator Algebras”, YMC*A 2025 Odense, July 2025.
- Tutor for online Teacher’s Enrichment Workshop on Real Analysis, Multivariable Calculus and Linear Algebra, St. Joseph’s College, Bangalore, 2022.
- Lecture in online international workshop “Initiation into Linear Algebra”, Mar Thoma College, Thiruvalla, October 2020.
- Talk titled “The Spectral Theorem” in the SAMOSE seminar Series, NCBS, Bangalore, September 2018.
- Talk titled “The Drunkard’s Walk” for undergraduates at St. Joseph’s College, Bangalore, July 2018.

Other

- Coordinator of the European Women in Mathematics Newsletter titled ‘Flash’.
- Committee Member, Irish Mathematical Society, January 2026 – present.

PROFESSIONAL AFFILIATIONS

- European Women in Mathematics; Coordinator of EWM Newsletter titled ‘Flash’.
- Irish Mathematical Society; Committee Member, IMS, January 2026 –.
- Irish Mathematical Trust

*I have been on approximately 14 months of parental leave.
Last updated: June 2026.*