

# Bartosz Malman

+46730561902  
bartek.malman@gmail.com  
www.malman.eu



## Personal

Birth 22nd of July, 1989  
Citizenship Swedish, Polish  
Languages English, Swedish, Polish (all fluent in speech and writing)

## Education

2015-2020 **Doctor of Philosophy in Mathematics**, *Lund University*, Lund, Sweden  
Pure mathematics, research in operator theory and functional analysis.  
2012-2015 **Master of Science in Mathematics**, *Lund University*, Lund, Sweden  
Pure mathematics  
2009-2014 **Master of Science in Computer Engineering**, *Faculty of Engineering (LTH), Lund University*, Lund, Sweden  
With a specialization in computer vision and image analysis

## Work experience

2023- **Assistant professor**, *Mälardalen University*, Västerås, Sweden  
Tenure-track position in mathematics.  
2020-2023 **Lecturer**, *KTH Royal Institute of Technology*, Stockholm, Sweden  
Lecturer for various courses in mathematics.  
2015-2020 **Teaching assistant**, *Lund University*, Lund, Sweden  
Teaching assistant for various courses in mathematics.  
2010-2011 **Teaching assistant**, *Faculty of Engineering (LTH)*, Lund, Sweden  
Teaching assistant for introductory courses in Java programming, computer science, algorithms and data structures.

## Scholarships and grants

Spring 2024 **Simons CRM Scholar-in-Residence Program**  
Simon Foundations grant for a research visit at the Mathematical Analysis Laboratory of the Centre de Recherches Mathématiques in Montréal, and Laval University in Quebec City, Canada.

## Scientific publications

12. *Embeddings into de Branges-Rovnyak spaces*, with Daniel Seco, accepted for publication in *Studia Mathematica* (2024).
11. *Revisiting mean-square approximation by polynomials in the unit disk*, accepted for publication in *Journal d'Analyse Mathématique* (2023).
10. *Thomson decompositions of measures in the disk*, *Transactions of the American Mathematical Society* 276, No. 12, 8529-8552 (2023).
9. *On the problem of smooth approximations in  $\mathcal{H}(b)$  and connections to subnormal operators*, with Adem Limani, *Journal of Functional Analysis* 284.5 (2023): 109803.
8. *Cyclic inner functions in growth classes and applications to approximation problems*, *Canadian Mathematical Bulletin* 66.3 (2023): 749-760.
7. *Construction of some families of smooth Cauchy transforms*, with Adem Limani, *Canadian Journal of Mathematics* 76.1 (2024): 319-344.
6. *On model spaces and density of functions smooth on the boundary*, with Adem Limani, *Revista Matemática Iberoamericana* 39, No 3, (2023).
5. *An abstract approach to approximations in spaces of pseudocontinuable functions*, with Adem Limani, *Proceedings of the American Mathematical Society* 150, No. 6, 2509-2519 (2022).
4. *Generalized Cesàro operators: geometry of spectra and quasi-nilpotency*, with Adem Limani, *International Mathematics Research Notices* 2021.23 (2021): 17695-17707.
3. *Hilbert spaces of analytic functions with a contractive backward shift*, with Alexandru Aleman, *Journal of Functional Analysis* 277.1 (2019): 157-199.
2. *Spectra of generalized Cesàro operators acting on growth spaces*, *Integral Equations and Operator Theory* 90.3 (2018): 26.
1. *Density of disk algebra functions in de Branges-Rovnyak spaces*, with Alexandru Aleman, *Comptes Rendus Mathématique* 355.8 (2017): 871-875.

Preprints and work-in-progress available at the [personal homepage](#) or by request.