

Müge Saadetoğlu

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Nationality: Turkish Cypriot

EDUCATION AND QUALIFICATIONS

• PhD

- University of Southampton Oct. 2001- Mar. 2005
- Thesis Title: *Finiteness Conditions and Bestvina-Brady Groups*
- Supervisor: Prof. Ian J. Leary
- Area of Research: *Algebraic Topology*. More precisely, three main topics of Study have been Finiteness Properties, Bestvina-Brady Groups and Euler Characteristics.
- *The last six months of my research were spent as a visiting scholar at Ohio-State University Math Department (Oct. 2004- Mar. 2005).*

• BSc

- University of Southampton 1998-2001
- Mathematics, First Class Honours
- Wide range of subjects in Pure Mathematics including Rings & Fields, Theory of Numbers, Algorithms, Hyperbolic Geometry, Topology, Group Theory and Applications, Topics in Applied Mathematics and Finite Mathematics

WORK EXPERIENCE

- *Assoc. Prof. Dr.* at Eastern Mediterranean University, Gazimagusa, Mersin 10, Turkey. 1.8.2025-present.
- *Assist. Prof. Dr.* at Eastern Mediterranean University, Gazimagusa, Mersin 10, Turkey: Mate306- Topoloji, Math206- Linear Algebra II, Math566- Linear Algebra (Graduate course), Math535- Topology (Graduate course), are among the courses taught, in addition to the ones given below. (01.03.2010-17.5.2024)
- *Lecturer, Dr.* at Eastern Mediterranean University, Gazimagusa, Mersin 10, Turkey: Math151: Calculus I, Math106: Linear Algebra, Mate321: Cebire Giriş, Math124: Geometry, Mate307: Cebir, Math223: Linear Algebra, Math412: Introduction to Abstract Algebra, Mate104: Soyut Matematik II, Mate112: Soyut Matematik are among the courses taught. (2006 -2010).
- *Research Scholar* at Ohio-State University, Columbus, Ohio: I have collaborated on research with members of the Mathematics Department, particularly my PhD supervisor. Prof. Ian J Leary (17/09/2004 – 30/03/2005).
- *Postgraduate Teaching Assistant* at University of Southampton, U.K.: I delivered mathematics tutorials to Engineering Foundation Year students and first-year mathematics undergraduates. (2001-2004).
- *Private Tutor* at University of Southampton, U.K.: I provided private tutoring to two Engineering Foundation Year students. (Jan-Jun 2002).

SCHOLARSHIPS

- Fully funded by the Ohio-State University Math Department and by my PhD supervisor Prof. Ian Leary during my visit at Ohio-State as a research scholar. (17/09/04- 30/03/05).

- Fully funded by the University of Southampton and the Overseas Research Scholarships Committee for postgraduate studies (2001-2004).
- Awarded the only full British Chevening Scholarship given to Northern Cyprus in 1998 for undergraduate studies in U.K. (1998-2001).

PUBLICATIONS

- Saadetoğlu, M., Nagy, B. & Avkan, A. Rotations on the triangular grid: angles of changes of the neighborhood motion map. *Aequat. Math.* **98**, 1053–1070 (2024). <https://doi.org/10.1007/s00010-024-01062-4>
- Fernandez, A., & Saadetoğlu, M. Algebraic results on rngs of singular functions. *Forum Mathematicum*, **36(2)**, 1645-1657. (2024) <https://doi.org/10.1515/forum-2023-0445>
- Saadetoğlu, M., Nagy, B. & Avkan, A. Digital continuity of rotations in the 2D regular grids. *Ann Math Artif Intell* **92**, 115–137 (2024). <https://doi.org/10.1007/s10472-023-09891-w>
- Saadetoğlu, M.; Dinsev, Ş.M. Inverses and Determinants of $n \times n$ Block Matrices. *Mathematics* **11**, 3784. (2023) <https://doi.org/10.3390/math11173784>
- M. Saadetoğlu, A. Avkan, B. Nagy and M. Saadat. On the Size of the Bijective Regions in Digital Rotations on the Hexagonal Grid. *2023 International Symposium on Image and Signal Processing and Analysis (ISPA)*, Rome, Italy, 2023, pp. 1-6, doi: 10.1109/ISPA58351.2023.10278914.
- Saadetoğlu, M. A Topological Proof for a Version of Artin’s Induction Theorem. *Symmetry* **2022**, *14*, 2121. <https://doi.org/10.3390/sym14102121>
- Avkan, A., Nagy, B. & Saadetoğlu, M. A comparison of digitized rotations of neighborhood motion maps of closest neighbors on 2D regular grids. *SIViP* **16**, 505–513 (2022). <https://doi.org/10.1007/s11760-021-01993-4>
- Avkan, A., Nagy, B. & Saadetoğlu, M. Digitized rotations of 12 neighbors on the triangular grid. *Ann Math Artif Intell* **88**, 833–857 (2020). <https://doi.org/10.1007/s10472-019-09688-w>
- Avkan, A., Nagy, B. and Saadetoğlu, M.: On the Angles of Change of the Neighborhood Motion Maps on the Triangular Grid, ISPA2019, 11th International Symposium on Image and Signal Processing and Analysis, Dubrovnik Croatia, p. 76-81. (2019).
- Avkan, A., Nagy, B. and Saadetoğlu, M., *Digitized Rotations of Closest Neighborhood on the Triangular Grid*, IWCIA2018, International Workshop on Combinatorial Image Analysis Proceedings, 53-67. (2018).
- Leary, I. and Saadetoğlu, M., *The cohomology of Bestvina-Brady groups*, Groups, Geometry and Dynamics, **5**, 121-138. (2011).
- Leary, I. and Saadetoğlu, M., *Ordinary homology of Bestvina-Brady groups*, Oberwolfach Report, Volume **3**, Issue **2**, 1191-1192. (2006).
- Leary, I. and Saadetoğlu, M., *Some groups of finite homological type*, Geometriae Dedicata, **119**, 113-120. (2006).
- Saadetoğlu, M., *Finiteness Conditions and Bestvina-Brady Groups*, University of Southampton PhD Thesis, March 2005.

PRESENTATIONS-TALKS

- Have given a talk entitled ‘On the Size of the Bijective Regions in Digital Rotations on the Hexagonal Grid’ at ISPA2023, Rome, Italy (2023)

- Have given a talk entitled ‘A Comparison of 2D Regular Grids based on Digital Continuity of Rotations’ at ISAIM2022, Florida, U.S.A. (Online Talk). (2022)
- Have given a talk entitled ‘On the Angles of Change of the Neighborhood Motion Maps on the Triangular Grid’ at ISPA2019, Dubrovnik, Croatia. (2019)
- Have given a talk entitled ‘Digitized Rotations of Closest Neighborhood on the Triangular Grid’ at IWCIA 2018, Porto, Portugal. (2018)
- Have given a talk entitled ‘A topological proof of a version of Artin’s induction theorem’ at General Seminars of M.E.T.U., Ankara, March 2015.
- Have given a presentation entitled ‘A topological proof of a version of Artin’s induction theorem’ at International Congress of Mathematicians (ICM 2014) in Seoul, South Korea, 2014.
- Have given a talk entitled ‘Euler characteristics of some groups’ at 2nd Joint EMU-METU (North Cyprus Campus) Seminar, May 2006.
- Have given a seminar at Eastern Mediterranean University in Cyprus, as invited speaker of Ping Zhang, on ‘Groups which have FHT but not of type FP’, April 2005.
- Have given a Topology seminar at Ohio-State University Math Department entitled ‘Groups which have FHT but not of type FP’, November 2004.
- Have given a talk in British Mathematical Colloquium 2004 entitled ‘Group which has FHT but not of type FP.’
- Presented a poster in LMS Durham Symposium on ‘Geometry and Cohomology in Group Theory’ July 2003.

CONFERENCES ATTENDED

I have attended several maths conferences so far. Below I list the main ones:

- International Symposium on Image and Signal Processing and Analysis, ISPA2023, Rome, Italy, 18-19 September 2023.
- International Symposium on Artificial Intelligence and Mathematics (‘Combinatorial and Geometric Problems in Imaging Sciences’ special session) Fort Lauderdale, FL. January 3–5, 2022.
- International Symposium on Image and Signal Processing and Analysis, ISPA2019, Dubrovnik, Croatia, 23- 25 September 23- 25, 2019.
- 19th International Workshop, IWCIA 2018, Porto, Portugal, November 22-24, 2018.
- International Congress of Mathematicians, Seoul, South Korea, August, 2014.
- International Congress of Mathematicians, Madrid, Spain; 22-30 August 2006
- British Women in Mathematics Day, De Morgan House, London 25 May 2005
- London Mathematical Society (LMS) invited lectures, Southampton 5-9 July 2004
- Workshop in Münster, Germany entitled ‘Classifying spaces for families of subgroups’ June 2004
- British Mathematical Colloquium 2004, Belfast, April 2004
- British Topology Meeting 18, Manchester, September 2003
- LMS Durham Symposium on ‘Geometry and Cohomology in Group Theory’ Durham, July 2003
- 55th British Mathematics Colloquium, Birmingham, April 2003
- Topology Meeting, King’s College London, 6 December 2002
- Discrete Groups and Analysis Workshop, Southampton, 5-7 September 2002
- Barcelona Conference on Algebraic Topology (BCAT), Barcelona, Spain, 2-6 July 2002
- 4th Postgraduate Group Theory Conference, Birmingham, 17-19 April 2002
- British (Applied) Mathematical Colloquium, Warwick, 8-11 April 2002
- 17th British Topology Meeting, Leicester, 5-7 April 2002

SUPERVISED STUDENTS

Ph.D. Supervision

Şakir Mehmet Dinsev: ‘On Eigenvalues and Eigenvectors of Block Matrices’ 2023- present.

Aydın Avkan; ‘Discrete Rotations on the Triangular Plane’ (co-advisor with Prof. Dr. Benedek Nagy), 2017- 2022.

M.Sc. Supervision

Şakir Mehmet Dinsev; ‘Properties of Block Matrices’, Eastern Mediterranean University, September 2023.

Aydın Avkan; ‘Irreducible Representations of Some Finite Groups’, Eastern Mediterranean University, 2016.

Sedef S. Emin; ‘Invariants and Bestvina- Brady Groups’, Eastern Mediterranean University, 2015.

Ajaeb ElFadel; ‘Cryptography by means of Linear Algebra and Number Theory’, Eastern Mediterranean University, 2014.

Cemaliye Kürt; ‘Euler Characteristics of Groups; C.T.C. Wall’s Approach’, Eastern Mediterranean University, 2012.

COMPUTER SKILLS

- Latex, Microsoft Word, Excel, X-fig (working knowledge)
- C-programming, Visual Basic, Java (limited)

LANGUAGES

- Turkish (Mother-tongue), English (Fluent), German (Basic)

ACTIVITIES AND INTERESTS

I enjoy cinema, reading, cycling, walking, listening to music, and participating in fitness classes. During my time at the University of Southampton, I was also an active member of the Staff Club Ladies’ Football Team and the Turkish Society.