Samet Sarıoğlan

Contact Information

✉: samet.sarioglans@gmail.com   🌐: https://ssario.github.io

Education

- Smith College Department of Mathematical Sciences (Northampton, MA, USA)
  Post-Doc;   Oct. 2022 – June 2023
  Host: Prof. Julianna Tymoczko

- Hacettepe University Department of Mathematics   Ankara, Turkey
  Ph. D.; GPA: 3.93   Sep. 2014 – Sep. 2019
  Advisor: Prof. Dr. Selma Altınok
  Thesis: Algebraic Structure of Generalized Splines

- Hacettepe University Department of Mathematics   Ankara, Turkey
  Master of Science; GPA: 3.75   Feb. 2013 – Sep. 2014
  Advisor: Prof. Dr. Sinem Onaran
  Thesis: Invariants of Legendrian Knots

- Hacettepe University Department of Mathematics and Science Education   Ankara, Turkey
  Bachelor of Education; GPA: 3.02   Sep. 2006 – June 2012

Research Areas

Algebraic geometry, commutative algebra, algebraic graph theory, spline theory.

Languages

- English (fluent)
- German (intermediate)
- Turkish (native)

Grants

- The Scientific and Technological Research Council of Turkey (TÜBİTAK),   2022 – 2023
  2219-International Postdoctoral Research Fellowship Program for Turkish Citizens

- The Scientific and Technological Research Council of Turkey (TÜBİTAK),   2014 – 2018
  2211-PhD Scholarship Programs

Publications & Preprints

1. S. Altınok, K. Anders, D. Arreola, L. Asencio, C. Ireland, S. Sarıoğlan, L. Smith.
   Generalized graph splines and the Universal Difference Property,
   Discrete Mathematics, 347(6), (2024). doi: 10.1016/j.disc.2024.113949

2. S. Fişekci, S. Sarıoğlan. *Basis condition for generalized spline modules*,
   Journal of Algebraic Combinatorics, 59(2) 359–369, (2024). doi: 10.1007/s10801-023-01290-y

3. S. Sarıoğlan, S. Altınok. *Multivariate generalized splines and syzygies on graphs*,
   Journal of Algebra and its Applications, 23(2), (2024). doi: 10.1142/S0219498824500397

4. S. Altınok, S. Sarıoğlan. *Basis criteria for generalized spline modules via determinant*,
   Discrete Mathematics, 344(2), (2021). doi: 10.1016/j.disc.2020.112223

5. S. Altınok, S. Sarıoğlan. *Flow-up bases for generalized spline modules on arbitrary graphs*,
   Journal of Algebra and its Applications, 20(10), (2021). doi: 10.1142/S0219498821501802

PROJECTS

1. *The universal difference property on generalized splines*   2022 - 2023
   Hacettepe University Scientific Research Projects, FHD-2022-19802

WORK EXPERIENCE

- THK University, Ankara Turkey   Jan. 2025 - present
  Lecturer (Part Time)

- Başkent University, Ankara Turkey   Jan. 2025 - present
  Lecturer (Part Time)

- TED University, Ankara Turkey   Sep. 2024 - Jan. 2025
  Lecturer (Part Time)

- Hacettepe Univeresity, Ankara Turkey   Jan. 2020 - Aug. 2024
  Lecturer

- TED University, Ankara Turkey   June 2019 - Jan. 2020
  Lecturer (Part Time)

TEACHING EXPERIENCE

- MAT 124: Engineering Mathematics II   2024–2025 Spring
  THK University, Ankara, Turkey
  Course Language: English

- MAT 224: Differential Equations   2024–2025 Spring
  THK University, Ankara, Turkey
  Course Language: English

- MATH 210: Linear Algebra   2024–2025 Spring
  Başkent University, Ankara, Turkey
  Course Language: English

- MATH 120: Linear Algebra   2024–2025 Fall
  TED University, Ankara, Turkey
  Course Language: English

- MATH 109: Basic Calculus   2024–2025 Fall
  TED University, Ankara, Turkey
  Course Language: English

- MATH 101: Calculus of One Variable   2024–2025 Fall
  TED University, Ankara, Turkey
  Course Language: English

- MATH 203: Linear Algebra and Differential Equations   2023–2024 Spring
  TED University, Ankara, Turkey
  Course Language: English

- SNF101: İlkokulda Temel Matematik (Basic Mathematics in Elementary Education)   2021–2022 Fall
  Hacettepe University, Ankara, Turkey
  Course Language: Turkish

- MKÖ370: Sayılar Teorisine Giriş (Introduction to Number Theory)   2020–2021 Spring
  Hacettepe University, Ankara, Turkey
  Course Language: Turkish

- MATH 101: Calculus of One Variable   2019–2020 Fall
  TED University, Ankara, Turkey
  Course Language: English

- MATH 111: Introduction to Calculus of One Variable   2019–2020 Fall
  TED University, Ankara, Turkey
  Course Language: English

- MATH 109: Basic Calculus   2018–2019 Summer
  TED University, Ankara, Turkey
  Course Language: English

- MATH 111: Introduction to Calculus of One Variable   2018–2019 Summer
  TED University, Ankara, Turkey
  Course Language: English

Talks

- Yozgat Bozok University Math Department Seminars, Yozgat Bozok University, İzmir, Turkey.
  November 20, 2024 (online)

- İzmir Institute of Technology Math Department Seminars, İzmir Institute of Technology, İzmir, Turkey.
  October 2, 2024

- 15th Ankara Mathematics Days, Ankara Hacı Bayram Veli University, Ankara, Turkey.
  May 24, 2024

- 14th Spring Math Meeting, Çankaya University, Ankara, Turkey.
  April 21, 2024

- SIAM Conference on Applied Algebraic Geometry (AG23), Eindhoven University of Technology, the Netherlands.
  July 13, 2023

- Discrete Math Workshop, Smith College, USA.
  May 6, 2023

- Math Lunch Talk Series, Smith College, USA.
  February 9, 2023

- Texas Number Theory and Combinatorics Seminar, The University of Texas at Tyler, USA.
  October 25, 2022 (online)

- Hacettepe University Department of Mathematics General Seminars, Hacettepe University, Ankara, Turkey.
  March 16, 2022 (online)

- Turkish Journal of Mathematics - Studies on Scientific Developments in Geometry, Algebra, and Applied Mathematics.
  February 3, 2022 (online)

- Texas Number Theory and Combinatorics Seminar, The University of Texas at Tyler, USA.
  October 21, 2021 (online)

- ICMME 2021, Gazi University, Ankara, Turkey.
  September 17, 2021 (online)

- ICPAM Van 2020, Van Yüzüncü Yıl University, Van, Turkey.
  September 3–5, 2020 (online)

- 32. National Mathematics Symposium, Ondokuz Mayıs University, Samsun, Turkey.
  August 31–September 3, 2019

- Workshop on Commutative Algebra and Combinatorics II, Hacettepe University, Ankara, Turkey.
  June 17–18, 2019

- WGT Workshop on Graph Theory and its Applications VIII, Boğaziçi University IMBM, Istanbul, Turkey.
  November 10, 2018

- 6th LMS Meeting on Applied Algebra and Geometry, Swansea University, Swansea, UK.
  September 10, 2018

- Workshop on Commutative Algebra and Combinatorics, Hacettepe University, Ankara, Turkey.
  May 5, 2018

- 13th Ankara Mathematics Days, TOBB University, Ankara, Turkey.
  April 27, 2018

Conferences & Seminars Attended

- Joint Mathematics Meeting 2023,   4–7 January 2023
  Boston, USA

- Discrete Math Workshop,   19 November 2022
  Smith College, USA

- Applied and Computational Geometry Workshop,   12–14 September 2018
  Loughborough University, UK

- İzmir Mathematics Days, Yaşar University, İzmir, Turkey   26–27 June 2018

- Higher Homotopy Groups (Turgut Önder), Çakılarası Matematik Köyü,   17–21 July 2017
  Eskişehir, Turkey

- TWIM Graduate Summer School II, METU, Ankara, Turkey   13–22 June 2017

- 12th Ankara Mathematics Days, Hacettepe University, Ankara, Turkey   25–26 May 2017

- Topology-Geometry Workshop, Hacettepe University, Ankara, Turkey   10 February 2017

- 10th Ankara Mathematics Days, METU, Ankara, Turkey   11–12 June 2015

- 22nd Gökova Geometry Topology Conference, Gökova, Turkey   25–30 May 2015

- Atılım Geometry Topology Workshop, Atılım University, Ankara, Turkey   15–16 May 2015

- Workshop on Algebraic and Geometric Topology, METU, Ankara, Turkey   9–10 January 2015

- Workshop on Contact Topology, Hacettepe University, Ankara, Turkey   25 October 2014

- 9th Ankara Mathematics Days, Atılım University, Ankara, Turkey   12–13 June 2014

- 21st Gökova Geometry Topology Conference, Gökova, Turkey   26–31 May 2014

- 13th Mathematics Symposium, Karabük University, Turkey   15–17 May 2014

- I. TWIM Workshop, Gebze Technical University, Turkey   2–4 May 2014

- II. TWIM Geometry Topology Summer School, Boğaziçi University,   26–30 August 2013
  Istanbul, Turkey

- 8th Ankara Mathematics Days, Çankaya University, Ankara, Turkey   13–14 June 2013

- 12th Mathematics Symposium, Hacettepe University, Ankara, Turkey   23–25 May 2013

Administrative Duties

- Member of organization commitee,
  Workshop on Commutative Algebra and Combinatorics II, Hacettepe University, Ankara, Turkey.
  17–18 June 2019

- Member of organization commitee,
  Workshop on Commutative Algebra and Combinatorics, Hacettepe University, Ankara, Turkey.
  5 May 2018

Computer Skills

Microsoft Office Word/Excel/Powerpoint, HTML, Adobe Illustrator/Photoshop, LaTeX, Maple, Macaulay2, Computations in Commutative Algebra (CoCoA)

References

- Prof. Dr. Selma Altınok
  Hacettepe University Department of Mathematics
  ✉: sbhupal@hacettepe.edu.tr
  Telephone: +90 312 2977850 / 142

- Prof. Dr. Şenol Dost
  Hacettepe University Department of Mathematics and Science Education
  ✉: dost@hacettepe.edu.tr
  Telephone: +90 312 2976104

- Prof. Dr. Sinem Onaran
  Hacettepe University Department of Mathematics
  ✉: sonaran@hacettepe.edu.tr
  Telephone: +90 312 2977850 / 120