# Özlem Beyarslan

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# **EDUCATION**

**Doctor of Philosophy in Mathematics**, June 2006, University of Illinois at Chicago. Thesis: Random Structures over Pseudofinite Fields, Advisor: David Marker

Master of Science in Mathematics, July 1999, Boğazici University, Istanbul, Turkey

**Bachelor of Science in Mathematics**, June 1997, Boğazici University, Istanbul, Turkey.

# POSITIONS

Associate Professor Boğaziçi Üniversitesi, Matematik Bölümü, 2018-present.

Assistant Professor Boğaziçi Üniversitesi, Matematik Bölümü, 2011-2018.

Instructor Boğaziçi Üniversitesi, Matematik Bölümü, 2007-2011.

**Post-doctoral Fellow** Université Denis-Diderot Paris 7 , 2006- 2007.

Algebraic Arithmetic Geometry Network Early Researcher Hebrew University of Jerusalem, 2004 - 2005.

## **RESEARCH INTERESTS**

Model theory of fields, function field arithmetic, Galois theory, graph theory.

## ADMINISTRATIVE DUTIES

**Boğaziçi University Institute of Science and Engineering**, Administrative Board Member, 2023-present.

Turkish Mathematics Society, Secretary General, 2016-present.

# European Mathematics Society,

Solidarity Committee, 2023-present.

# PUBLICATIONS AND PREPRINTS

- Galois Actions of Finitely Generated Groups Rarely Have Model Companions (with P. Kowalski) Bull. Lond. Math. Soc. 56 (2024), no. 2, 847–859.
- Model Theory of Galois Actions of Torsion Abelian Groups (with P. Kowalski) Journal de l'Institut de Mathématiques de Jussieu, 22 (2023), no. 6, 2943–2985.
- Fields with Automorphism and Valuation (with D. M. Hoffmann, G. Onay, D. Pierce) Arch. Math. Logic 59 (2020), no. 7-8, 997–1008.
- Model Theory of Fields with Free Operators in Positive Characteristic (with D. M. Hoffmann, M. Kamensky, P. Kowalski) Transactions of the American Mathematical Society 372 (8), (2019), 5991-6016.
- Model Theory of Fields with Virtually Free Group Actions (with P. Kowalski)
  Proceedings of the London Mathematical Society (3) 118 (2019), no. 2, 221–256.
- Geometric Representation in the Theory of Pseudofinite Fields (with Z. Chatzidakis) Journal of Symbolic Logic, Volume 82, Issue 3 (2017), 1132-1139.
- On Algebraic Closure in Pseudofinite Fields (with E. Hrushovski) Journal of Symbolic Logic, 77 (2012), no. 4, 1057–1066.
- Random Hyperhraphs in Pseudofinite Fields Journal de l'Institut de Mathématiques de Jussieu, 9 (2010), no. 1, 29–47.

# MASTER THESIS SUPERVISED

#### Feyzanur Berksoy

Question of Model Companionability: Some Positive and Negative Answers, June 2022.

Kadir Güray Güner Definable Sets over Finite Fields, June 2013.

Cihan Pehlivan O-minimal Structures, June 2011.

#### PROJECTS

# TUBITAK 1001 Project,

Cisimlere Etki Eden Grupların Sınıflandırılması, 2020-2023.

Boğaziçi Üniversitesi Bilimsel Araştırma Projeleri, Sözde-sonlu Cisimlerin Özyapıdönüşümleri, 2014-2016.

## **RESEARCH VISITS**

Trimester on Model Theory, Combinatorics and Valued fields Institut Henri Poincaré, Paris, January-February 2018.

Fields with Operators Working Group NMK, Şirince Izmir, July 2016.

Model Theory, Arithmetic Geometry and Number Theory MSRI, Berkeley, January-February 2014.

Research in Paris Université Paris-Sud, France June-July 2013

#### **RECENT INVITED TALKS**

Young Women in Model Theory Max Planck Institute, Bonn, Germany, 2024.

Model Theory and Applications Cetraro, Italy 2022.

Workshop on Recent Applications of Model Theory Fields Institute, Toronto, Canada, July 2019.

Logic Seminar University of Manchester, Manchester, UK, May 2019.

**Pure and Applied Model Theory** University of Illinois at Chicago, Chicago, USA, Oct 2018.

Antalya Algebra Days NMK, Sirince, Izmir, May 2018.

**Departmental Colloquium** Galatasaray University , May 2018.

Conference Model Theory and Applications I IHP, Paris, France March 2018.

Model Theory Conference Banach Center, Poland , July 2017.

**Logic Seminar** University of Oxford, England, June 2017.

**Departmental Colloquium** Gebze Tüksek Teknoloji Enstitüsü , April 2017.

# ORGANIZED CONFERENCES AND SEMINARS

Antalya Algebra Days NMK, Şirince, İzmir, Turkey, May 2023.

Special Session on Model Theory Annual Meetinig of Association of Symbolic Logic, University of California at Irvine, USA, March 2022.

Special Session on Model Theory Annual Meetinig of Association of Symbolic Logic, University of California at Irvine, USA, March 2020.

**BN-Pair Conference** Boğaziçi University, Istanbul, Turkey, October 2016.

Models and Groups IMBM, Istanbul, Turkey, 2015-2016.

Model Theory, Difference/Differential Equations and Applications CIRM, Marseille, France, April 2015.

Summer School around Valuation Theory Mathematics Village, Izmir, Turkey, May 2014.

**Boğaziçi University Mathematics Colloquium** Istanbul, Turkey, 2014-2016.

Model Theory Algebra and Combinatorics Conference Koç University, Turkey, August 2011.

**10.** Colloquiumfest on Valuation Theory IMBM, Turkey, June 2011.

# TEACHING EXPERIENCE

## List of Courses Taught at Boğaziçi University

Introduction to Mathematical Logic, Discrete Mathematics, Matrix Theory, Introduction to Mathematical Structures, Graduate Algebra I, II, Calculus I, II, Linear Algebra, Set Theory, Group Theory, Rings Field and Galois Theory, Graph Theory.

## List of Courses Taught at Nesin Mathematics Village

Introduction to Number Theory, Introduction to Graph Theory, Linear Algebra, Field Theory, Galois Theory, Valued Fields.