

## Assoc. Prof. ÖMER KÜÇÜKSAKALLI

### Personal Information

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### International Researcher IDs

ScholarID: iaXtU88AAAAJ

ORCID: 0000-0002-9805-7552

Publons / Web Of Science ResearcherID: ABA-4131-2020

ScopusID: 36816194200

Yoksis Researcher ID: 164003

### Education Information

Doctorate, University of Massachusetts Amherst, College of Natural Sciences, Department of Mathematics and Statistics, United States Of America 2006 - 2009

Postgraduate, University of Massachusetts Amherst, College of Natural Sciences, Department of Mathematics and Statistics, United States Of America 2004 - 2006

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, Turkey 1999 - 2004

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Class numbers of ray class fields of imaginary quadratic fields, University Of Massachusetts Amherst, Matematik Ve İstatistik Bölümü, 2009

### Research Areas

Mathematics, Nonassociative Rings and Algebras, Algebraic Geometry, Commutative Rings and Algebras, Number Theory, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2016 - Continues

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2010 - 2016

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2009 - 2010

Research Assistant, University of Massachusetts Amherst, College of Natural Science, Mathematics and Statistics, 2004 - 2009

## Courses

Elliptic Curves, Postgraduate, 2022 - 2023, 2021 - 2022  
Theory of Function Fields, Postgraduate, 2023 - 2024  
Introduction to Number Theory, Undergraduate, 2023 - 2024  
Linear Algebra I, Undergraduate, 2022 - 2023, 2018 - 2019  
Abstract Algebra, Undergraduate, 2022 - 2023  
Algebraic Number Theory, Postgraduate, 2022 - 2023, 2021 - 2022, 2017 - 2018  
Calculus of Functions of Several Variables, Undergraduate, 2021 - 2022  
Lie algebras, Postgraduate, 2022 - 2023  
Algebra II, Postgraduate, 2020 - 2021  
Calculus for Mathematics Students I, Undergraduate, 2020 - 2021, 2019 - 2020  
Calculus with Analytic Geometry, Undergraduate, 2021 - 2022  
Algebra I, Postgraduate, 2020 - 2021  
Elementary Number Theory II, Undergraduate, 2019 - 2020  
Calculus I, Undergraduate, 2020 - 2021  
Introduction to Representation Theory, Undergraduate, 2018 - 2019  
Linear Algebra II, Undergraduate, 2018 - 2019  
Introduction to Differential Equations, Undergraduate, 2019 - 2020  
Groups and Geometry, Undergraduate, 2019 - 2020  
Ideals Varieties and Algorithms, Undergraduate, 2018 - 2019  
Basic Algebraic Structures, Undergraduate, 2017 - 2018

## Advising Theses

Küçüksakallı Ö., On the Jacobian matrices of generalized Chebyshev polynomials, Postgraduate, A.İLERİ(Student), 2023  
Küçüksakallı Ö., Arithmetically exceptional lattès maps attached to elliptic curves without complex multiplication, Postgraduate, O.ODABAŞ(Student), 2023  
KÜÇÜKSAKALLI Ö., Coefficients of folding polynomials attached to lie algebras of rank two, Postgraduate, M.AYDOĞDU(Student), 2021

## Jury Memberships

Appointment to Academic Staff-Assistant Professorship, Appointment to Academic Staff-Assistant Professorship, Boğaziçi Üniversitesi, July, 2023  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, December, 2022

## Designed Lessons

Küçüksakallı Ö., Algorithmic Number Theory, Postgraduate, 2023 - 2024  
Küçüksakallı Ö., Elliptic Curves, Postgraduate, 2021 - 2022

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Value sets of folding polynomials over finite fields**  
KÜÇÜKSAKALLI Ö.  
TURKISH JOURNAL OF MATHEMATICS, vol.43, no.3, pp.1407-1413, 2019 (SCI-Expanded)
- II. **Value sets of bivariate folding polynomials over finite fields**  
KÜÇÜKSAKALLI Ö.  
FINITE FIELDS AND THEIR APPLICATIONS, vol.54, pp.253-272, 2018 (SCI-Expanded)
- III. **Arithmetic exceptionality of generalized Lattes maps**  
KÜÇÜKSAKALLI Ö., ÖNSİPER M. H.  
JOURNAL OF THE MATHEMATICAL SOCIETY OF JAPAN, vol.70, no.2, pp.823-832, 2018 (SCI-Expanded)
- IV. **On the arithmetic exceptionality of polynomial mappings**  
KÜÇÜKSAKALLI Ö.  
BULLETIN OF THE LONDON MATHEMATICAL SOCIETY, vol.50, no.1, pp.143-147, 2018 (SCI-Expanded)
- V. **Bivariate polynomial mappings associated with simple complex Lie algebras**  
KÜÇÜKSAKALLI Ö.  
JOURNAL OF NUMBER THEORY, vol.168, pp.433-451, 2016 (SCI-Expanded)
- VI. **Value sets of bivariate Chebyshev maps over finite fields**  
KÜÇÜKSAKALLI Ö.  
FINITE FIELDS AND THEIR APPLICATIONS, vol.36, pp.189-202, 2015 (SCI-Expanded)
- VII. **On the computation of generalized division polynomials**  
KÜÇÜKSAKALLI Ö.  
TURKISH JOURNAL OF MATHEMATICS, vol.39, no.4, pp.547-555, 2015 (SCI-Expanded)
- VIII. **Value sets of Lattes maps over finite fields**  
Kucuksakalli O.  
JOURNAL OF NUMBER THEORY, vol.143, pp.262-278, 2014 (SCI-Expanded)
- IX. **On the units generated by Weierstrass forms**  
KÜÇÜKSAKALLI Ö.  
LMS JOURNAL OF COMPUTATION AND MATHEMATICS, vol.17, pp.303-313, 2014 (SCI-Expanded)
- X. **A RECURRENCE RELATION FOR BERNOULLI NUMBERS**  
KÜÇÜKSAKALLI Ö.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.42, no.4, pp.319-329, 2013 (SCI-Expanded)
- XI. **Class numbers of ring class fields of prime conductor**  
KÜÇÜKSAKALLI Ö.  
ACTA ARITHMETICA, vol.153, no.3, pp.251-269, 2012 (SCI-Expanded)
- XII. **CLASS NUMBERS OF RAY CLASS FIELDS OF IMAGINARY QUADRATIC FIELDS**  
Kucuksakalli O.  
MATHEMATICS OF COMPUTATION, vol.80, no.274, pp.1099-1122, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **A Proof of the Lucas-Lehmer Test and its Variations by Using a Singular Cubic Curve**  
KÜÇÜKSAKALLI Ö.  
JOURNAL OF INTEGER SEQUENCES, vol.21, no.6, 2018 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Value sets of Lattes maps over finite fields**  
KÜÇÜKSAKALLI Ö.

The 12th International Conference on Finite Fields and Their Applications, New York, United States Of America, 13 - 17 July 2015

- II. **Weierstrass Formları Tarafından Üretilen Tersinir Elemanlar Üzerine**  
KÜÇÜKSAKALLI Ö.

10. Ankara Matematik Günleri, Ankara, Turkey, 11 - 12 June 2015

- III. **On the units generated by Weierstrass forms**

KÜÇÜKSAKALLI Ö.

Algorithmic Number Theory Symposium XI, Gyeongju, South Korea, 6 - 11 August 2014, vol.17, pp.303-313

## Supported Projects

Küçüksakallı Ö., TUBITAK Project, Eğri Tabanlı Kriptografiye Matematiksel Bakış 112T011, 2012 - 2014

## Metrics

Publication: 16

Citation (WoS): 14

Citation (Scopus): 16

H-Index (WoS): 2

H-Index (Scopus): 3