

## Asst. Prof. MURAT ALTUNBULAK

### Personal Information

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### International Researcher IDs

ScholarID: axieTKIAAAAJ

ORCID: 0000-0002-4979-2227

Publons / Web Of Science ResearcherID: P-3189-2019

ScopusID: 24437434200

Yoksis Researcher ID: 50833

### Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Matematik (Dr), Turkey  
2002 - 2008

Postgraduate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Matematik (Yl) (Tezli),  
Turkey 2000 - 2002

Undergraduate, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, Turkey 1995 - 2000

### Dissertations

Doctorate, The Pauli principle, representation theory, and geometry of flag varieties, Ihsan Dogramaci Bilkent University,  
Institute Of Engineering And Natural Sciences, Mathematics, 2008

Postgraduate, Geometry and matrix spectral problems, Ihsan Dogramaci Bilkent University, Institute Of Engineering And  
Natural Sciences, Mathematics, 2002

### Research Areas

Mathematics

### Academic Titles / Tasks

Assistant Professor, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2009 - Continues

Lecturer, Atilim University, Faculty Of Arts And Sciences, Department Of Mathematics, 2008 - 2009

### Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2022 - 2024

Head of Department, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2021 - 2022

Head of Department, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2015 - 2018

Deputy Head of Department, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2012 - 2015

## Courses

### Doctorate

Ph.D. Thesis, Doctorate, 2012 - 2013  
Complex Analysis, Doctorate, 2012 - 2013  
Ph.D. Research, Doctorate, 2012 - 2013  
REPRESENTATIONS THEORY, Doctorate, 2013 - 2014, 2012 - 2013  
Theory of Functions of Complex Variables, Doctorate, 2011 - 2012  
Lie Groups, Doctorate, 2010 - 2011

### Postgraduate

M.Sc. Thesis, Postgraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2011 - 2012  
M.Sc. Research, Postgraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2011 - 2012, 2010 - 2011  
ADVANCED LINEAR ALGEBRA, Postgraduate, 2023 - 2024, 2022 - 2023  
M.Sc. Seminar, Postgraduate, 2023 - 2024  
Invariant Theory, Postgraduate, 2015 - 2016, 2014 - 2015  
THEORY OF FUNCTIONS OF A REAL VARIABLE, Postgraduate, 2009 - 2010

### Undergraduate

CALCULUS II, Undergraduate, 2023 - 2024, 2022 - 2023  
CALCULUS II, Undergraduate, 2023 - 2024  
Matematik 1, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2014 - 2015  
Calculus 1, Undergraduate, 2023 - 2024, 2022 - 2023  
Project, Undergraduate, 2022 - 2023, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013  
Basic Algebraic Structures, Undergraduate, 2020 - 2021, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Matematik II, Undergraduate, 2020 - 2021, 2019 - 2020, 2017 - 2018, 2016 - 2017  
Calculus I, Undergraduate, 2021 - 2022, 2018 - 2019, 2017 - 2018  
Calculus II, Undergraduate, 2018 - 2019, 2017 - 2018  
Fundamentals of Mathematics, Undergraduate, 2018 - 2019, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Linear Algebra, Undergraduate, 2016 - 2017  
Calculus III, Undergraduate, 2017 - 2018, 2013 - 2014  
Calculus II, Undergraduate, 2015 - 2016  
Analiz 1, Undergraduate, 2016 - 2017  
Basic Algebraic Structures, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Linear Algebra, Undergraduate, 2015 - 2016  
Fundamentals of Mathematics, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Calculus I, Undergraduate, 2015 - 2016  
Linear Algebra 2, Undergraduate, 2012 - 2013  
Calculus III, Undergraduate, 2013 - 2014  
Linear Algebra 2, Undergraduate, 2011 - 2012, 2010 - 2011  
Linear Algebra 2, Undergraduate, 2011 - 2012, 2010 - 2011  
Complex Calculus, Undergraduate, 2011 - 2012  
Linear Algebra 1, Undergraduate, 2012 - 2013  
Project, Undergraduate, 2011 - 2012, 2010 - 2011  
Matematik 1, Undergraduate, 2011 - 2012  
REAL ANALYSIS, Undergraduate, 2010 - 2011, 2009 - 2010  
Linear Algebra 1, Undergraduate, 2011 - 2012, 2010 - 2011  
Linear Algebra 1, Undergraduate, 2011 - 2012, 2010 - 2011  
Mathematics III, Undergraduate, 2010 - 2011

## Supervised Theses

## Supervised Theses

Altunbulak M., Kuiverlerin temsilleri, Postgraduate, Ç.YIRTICI(Student), 2016

Altunbulak M., Simitsi çeşitlemlerin geometrisi, Postgraduate, Ö.UĞURLU(Student), 2012

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

- I. **The number of orientable small covers over a product of simplices**  
Altunbulak M., Güçlükan İlhan A.  
PROCEEDINGS OF THE JAPAN ACADEMY SERIES A-MATHEMATICAL SCIENCES, vol.95, no.1, pp.1-5, 2019 (SCI-Expanded)
- II. **Generalized Pauli constraints in small atoms**  
Schilling C., Altunbulak M., Knecht S., Lopes A., Whitfield J. D., Christandl M., Gross D., Reiher M.  
PHYSICAL REVIEW A, vol.97, no.5, 2018 (SCI-Expanded)
- III. **On small covers over a product of simplices**  
Altunbulak M., Guclukan Ilhan A.  
TURKISH JOURNAL OF MATHEMATICS, vol.42, no.3, pp.1528-1535, 2018 (SCI-Expanded)
- IV. **The Pauli principle revisited**  
Altunbulak M., Klyachko A.  
COMMUNICATIONS IN MATHEMATICAL PHYSICS, vol.282, no.2, pp.287-322, 2008 (SCI-Expanded)

## Papers Published in Refereed Scientific Meetings

- I. **A New Construction of Binary Linear Constant Weight Codes**  
Altunbulak M., Altunbulak Aksu F.  
Second International Bilateral Workshop on Science between Dokuz Eylül University and Azerbaijan National Academy of Science, İzmir, Turkey, 18 November 2022, pp.27
- II. **Binary Linear Constant Weight Codes and n-ary Symmetric Difference**  
Altunbulak M.  
Algebra, Topology and Related Fields, İzmir, Turkey, 22 - 23 September 2022, pp.2
- III. **Simplekslerin Çarpımları Üzerindeki Yönlendirilebilir Dar Örtüler**  
Altunbulak M.  
33. Ulusal Matematik Sempozyumu, İstanbul, Turkey, 31 August - 03 September 2021, pp.79
- IV. **On Small Covers over a Product of Simplices**  
GÜÇLÜKAN İLHAN A., ALTUNBULAK M.  
IV. Kadın Matematikçiler Derneği Çalıştayı, Ankara, Turkey, 28 April 2017
- V. **Calculation Of Genralized Pauli Constraints**  
Altunbulak M.  
The International Workshop on: Reduced Density Matrices in Quantum Physics and Role of Fermionic Exchange Symmetry 2016, Oxford, England, 12 - 15 April 2016
- VI. **On The Calculations Of Moment Polytopes**  
Altunbulak M.  
Workshop On Groups Algebras and Related Fields, İzmir, Turkey, 4 - 05 January 2016

## Tasks In Event Organizations

Güçlükan İlhan A., Adıyaman M., Gürbüzler S. K., Karpuz B., Özdemir S., Bayrıl D., Öğür V., Altunbulak M., Sarıoğlu C. C., Bayrıl Aykut D., 34th National Mathematics Symposium, Scientific Congress, İzmir, Turkey, Eylül 2022

Canlı K., ALTUNBULAK M., Dokuz Eylül Üniversitesi ile Azerbaycan Milli İlimler Akademisi Arasındaki Birinci Temel Bilim İkili Çalıştayı, Workshop Organization, İzmir, Turkey, Kasım 2021

Altunbulak M., Karatekin Mathematics Days: Combinatorics, Algebra, Geometry and Interactions, Workshop Organization, Çankırı, Turkey, Haziran 2011

## **Metrics**

Publication: 10

Citation (WoS): 145

Citation (Scopus): 23

H-Index (WoS): 2

H-Index (Scopus): 1

## **Congress and Symposium Activities**

34. Ulusal Matematik Sempozyumu, Session Moderator, İzmir, Turkey, 2022

## **Invited Talks**

The International Workshop on: Reduced Density Matrices in Quantum Physics and Role of Fermionic Exchange Symmetry 2016, Workshop, Department of Physics, University of Oxford, England, April 2016

## **Non Academic Experience**

Dokuz Eylül Üniversitesi Fen Fakültesi (Fen-Edebiyat Fak.) Topoloji Anabilim Dalı, Yardımcı Doçent