

## Assoc. Prof. Temha ERKOÇ

### Personal Information

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### International Researcher IDs

ScholarID: MV1BqEsAAAAJ

ORCID: 0000-0001-5437-3679

Publons / Web Of Science ResearcherID: K-3717-2016

ScopusID: 55934923600

Yoksis Researcher ID: 123408

### Education Information

Post Doctorate, University of Wisconsin-Madison, Mathematics, United States Of America 2010 - 2011

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Matematik , Turkey 2003 - 2008

Postgraduate, Istanbul University, Institute of Graduate Studies In Sciences, Matematik, Turkey 1998 - 2003

Undergraduate, Istanbul University, Faculty Of Science, Department of Mathematics, Turkey 1994 - 1998

### Dissertations

Doctorate, Q-Gruplarının Sınıflandırılması, Istanbul University, Institute of Graduate Studies In Sciences, Matematik, 2008

Postgraduate, Sonlu Grupların Klasik Gösterilişi, Istanbul University, Institute of Graduate Studies In Sciences, Matematik, 2003

### Research Areas

Mathematics, Group Theory and Generalizations, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty of Science, Department of Mathematics, 2023 - Continues

Assistant Professor, Istanbul University, Faculty of Science, Department of Mathematics, 2018 - 2023

Assistant Professor, Istanbul University, Faculty of Science, Department of Mathematics, 2008 - 2018

Research Assistant, Istanbul University, Faculty of Science, Department of Mathematics, 1998 - 2008

### Academic and Administrative Experience

### Courses

Seminer, Doctorate, 2018 - 2019  
Cebir 2, Undergraduate, 2018 - 2019  
Sonlu Grupların Gösteriliş Teorisi 2, Postgraduate, 2018 - 2019  
Cebir 3, Undergraduate, 2019 - 2020  
Cebir II (İ.Ö.), Undergraduate, 2016 - 2017  
Representation Theory of Finite Groups II, Postgraduate, 2016 - 2017  
Uzmanlık Alan Dersi, Doctorate, 2016 - 2017  
Cebir II, Undergraduate, 2016 - 2017  
Sonlu Grupların Gösteriliş Teorisi II, Postgraduate, 2016 - 2017  
Mesleki İngilizce (i.ö.), Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Representation Theory of Finite Groups I, Postgraduate, 2016 - 2017  
Cebir II (Matematik), Undergraduate, 2015 - 2016, 2014 - 2015, 2010 - 2011  
Sonlu Grupların Gösteriliş Teorisi I (uzaktan eğitim), Postgraduate, 2016 - 2017  
Cebir II (Matematik) (i.ö.), Undergraduate, 2015 - 2016, 2014 - 2015  
Mesleki İngilizce, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Cebir III, Undergraduate, 2016 - 2017, 2015 - 2016  
Cebir III (i.ö.), Undergraduate, 2016 - 2017, 2015 - 2016  
Lineer Cebir (Orman Fakültesi), Undergraduate, 2014 - 2015  
Uzmanlık Alan Dersi, Postgraduate, 2013 - 2014  
Soyut Matematik I, Undergraduate, 2014 - 2015  
Soyut Matematik I (i.ö.), Undergraduate, 2014 - 2015  
Grup Teorisinden Seçme Konular, Undergraduate, 2013 - 2014  
Cebir II (Matematik), Undergraduate, 2012 - 2013, 2011 - 2012, 2009 - 2010  
Grup Teorisinden Seçme Konular (Matematik), Undergraduate, 2012 - 2013  
Lineer Cebir (Ast. ve Uzay Bil.), Undergraduate, 2012 - 2013  
Sonlu Grupların Gösteriliş Teorisi II (Yüksek Lisans), Postgraduate, 2012 - 2013  
Cebir II (Matematik, ikinci öğretim), Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011  
Grup Teorisinden Seçme Konular (Matematik, ikinci öğretim), Undergraduate, 2012 - 2013  
Sonlu Grupları Gösteriliş Teorisi II (Yüksek Lisans), Postgraduate, 2011 - 2012  
Soyut Matematik I (Matematik), Undergraduate, 2012 - 2013  
Cebir III (Matematik), Undergraduate, 2012 - 2013, 2011 - 2012  
Sonlu Grupların Gösteriliş Teorisi I (Yüksek Lisans), Postgraduate, 2012 - 2013, 2011 - 2012  
Lineer Cebir (Ast. ve Uzay Bil., ikinci öğretim), Undergraduate, 2011 - 2012  
Soyut Matematik I (Matematik, ikinci öğretim), Undergraduate, 2012 - 2013  
Lineer Cebir (Astronomi ve Uzay Bilimleri), Undergraduate, 2011 - 2012  
Cebir III (Matematik, ikinci öğretim), Undergraduate, 2012 - 2013, 2011 - 2012  
Lineer Cebir (Mat.+Ast. ikinci öğretim), Undergraduate, 2010 - 2011  
Elementer Sayı Kuramı (HAYEF), Undergraduate, 2011 - 2012  
Cebire Giriş (HAYEF), Undergraduate, 2011 - 2012  
Lineer Cebir (Mat.+Ast.), Undergraduate, 2010 - 2011  
Alan Eğitiminde Araştırma Projesi (Tezsiz Yüksek Lisans), Postgraduate, 2010 - 2011, 2009 - 2010  
Lineer Cebir (Mat.+Ast. ikinci öğretim), Undergraduate, 2009 - 2010  
Lineer Cebir (Matematik +Astronomi ve Uzay Bilimleri), Undergraduate, 2009 - 2010  
Diferansiyel Denklemler (Astronomi ve Uzay Bil.), Undergraduate, 2009 - 2010  
Diferansiyel Denklemler (Matematik), Undergraduate, 2009 - 2010  
Matematik I (Mühendislik Fakültesi), Undergraduate, 2009 - 2010, 2008 - 2009  
Matematik II (Mühendislik Fakültesi), Undergraduate, 2008 - 2009  
Matematik II (Orman Fakültesi), Undergraduate, 2008 - 2009

## Advising Theses

Erkoç T., Sonlu grupların monolitik karakterleri üzerine bir çalışma, Doctorate, S.BOZKURT(Student), 2024

Erkoç T., Karakter Derece Çizgeleri, Postgraduate, G.AKAR(Student), 2022

Erkoç T., Sonlu Gruplar ve Bazı Özel İndirgenemez Karakterleri, Doctorate, J.MİRAY(Student), 2022

Erkoç T., İndirgenemez karakter dereceleri ve türev uzunluğu, Doctorate, B.Çınarcı(Student), 2018

Erkoç T., Sonlu grupların kompleks karakterleri, Postgraduate, B.ÇINARCI(Student), 2014

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

- I. **SM-vanishing conjugacy classes of finite groups**  
Erkoç T., Bozkurt Güngör S., Akar G.  
JOURNAL OF ALGEBRA AND ITS APPLICATIONS, vol.11, pp.1-9, 2023 (SCI-Expanded)
- II. **SOME CRITERIA FOR SOLVABILITY AND NILPOTENCY OF FINITE GROUPS BY STRONGLY MONOLITHIC CHARACTERS**  
Gungor S. B., ERKOÇ T.  
BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY, vol.108, no.1, pp.120-124, 2023 (SCI-Expanded)
- III. **Strongly monolithic characters of finite groups**  
Erkoç T., B. Güngör S., Özkan J. M.  
JOURNAL OF ALGEBRA AND ITS APPLICATIONS, vol.22, no.8, 2023 (SCI-Expanded)
- IV. **On the relations between the structures of finite groups and their strongly monolithic characters**  
Ozkan J. M., ERKOÇ T.  
COMMUNICATIONS IN ALGEBRA, vol.51, no.2, pp.657-662, 2023 (SCI-Expanded)
- V. **Rational Groups whose character degree graphs are disconnected**  
Erkoç T., Akar G.  
COMPTES RENDUS MATHEMATIQUE, vol.360, pp.711-715, 2022 (SCI-Expanded)
- VI. **Finite solvable groups with few imprimitive irreducible characters**  
Erkoç T., Cınarcı B.  
JOURNAL OF ALGEBRA AND ITS APPLICATIONS, vol.21, no.04, 2022 (SCI-Expanded)
- VII. **Solvable groups having primitive characters of degree two**  
Cınarcı B., Erkoç T.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.51, no.1, pp.228-234, 2022 (SCI-Expanded)
- VIII. **Monolithic characters of real groups**  
Erkoc T., Cınarcı B.  
COMMUNICATIONS IN ALGEBRA, vol.49, no.8, pp.3192-3199, 2021 (SCI-Expanded)
- IX. **A NOTE ON DERIVED LENGTH AND CHARACTER DEGREES**  
Cınarcı B., Erkoc T.  
BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY, vol.103, no.2, pp.271-277, 2021 (SCI-Expanded)
- X. **Real characters, monolithic characters and the Taketa inequality**  
Cınarcı B., Erkoc T.  
JOURNAL OF ALGEBRA AND ITS APPLICATIONS, vol.18, no.10, 2019 (SCI-Expanded)
- XI. **Irreducible constituents of products of characters**  
Cınarcı B., Erkoc T.  
COMMUNICATIONS IN ALGEBRA, vol.47, no.12, pp.5398-5403, 2019 (SCI-Expanded)
- XII. **Finite groups whose character degree graphs coincide with their prime graphs**  
Erkoc T., Yilmazturk U., Güloğlu İ. Ş.  
CZECHOSLOVAK MATHEMATICAL JOURNAL, vol.68, no.3, pp.647-656, 2018 (SCI-Expanded)
- XIII. **Rational permutation groups containing a full cycle**  
Erkoc T., Yilmazturk U.  
MATHEMATICA SLOVACA, vol.63, no.6, pp.1227-1232, 2013 (SCI-Expanded)

#### XIV. **Some sufficient conditions for the Taketa inequality**

Yilmazturk U., Erkoc T., Guloglu I. S.

PROCEEDINGS OF THE JAPAN ACADEMY SERIES A-MATHEMATICAL SCIENCES, vol.89, no.9, pp.103-106, 2013  
(SCI-Expanded)

### **Articles Published in Other Journals**

#### I. **A Study On the Kernels of Irreducible Characters of Finite Groups**

Çınarcı B., Erkoç T.

CUMHURİYET SCIENCE JOURNAL, vol.43, no.3, pp.449-453, 2022 (Peer-Reviewed Journal)

#### II. **Finite Groups Having Monolithic Characters of Prime Degree**

Erkoç T., Çınarcı B.

Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.9, no.4, pp.997-1001, 2021 (Peer-Reviewed Journal)

#### III. **2-Transitive Frobenius Q-Groups**

Erkoç T., Güzel E.

University of Istanbul Faculty of Science the Journal of Mathematics, Physics and Astronomy, vol.3, pp.1-6, 2011  
(Peer-Reviewed Journal)

#### IV. **The Classification of Frobenius Q-Groups**

Erkoç T., Güzel E.

University of Istanbul Faculty of Science the Journal of Mathematics, Physics and Astronomy, vol.3, pp.7-14, 2011  
(Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

#### I. **Strongly Monolithic Characters of Finite Groups**

Erkoç T., Bozkurt Güngör S., Özkan J. M.

The 7th Biennial International Group Theory Conference, Potchefstroom, South Africa, 7 - 11 August 2023, pp.1

#### II. **A classification of rational groups by using character degree graphs**

Erkoç T., Akar G.

the 7th Biennial International Group Theory Conference, Potchefstroom, South Africa, 7 - 11 August 2023, pp.1

#### III. **Sonlu Grupların Güçlü Monolitik Karakterleri**

Erkoç T., B. Güngör S., Özkan J. M.

34. Ulusal Matematik Sempozyumu, İzmir, Turkey, 31 August - 03 September 2022, pp.71

#### IV. **Rasyonel Grupların Karakter Derece Çizgeleri**

Akar G., Erkoç T.

34. Ulusal Matematik Sempozyumu, İzmir, Turkey, 31 August - 03 September 2022, pp.1

#### V. **Character Degree Graphs of Rational Groups**

A. Uysal G., Erkoç T.

XII International Conference of the Georgian Mathematical Union, Batumi, Georgia, 29 August - 03 September 2022, pp.107

#### VI. **Rational Groups whose Character Degree Graphs are Disconnected**

Akar G., Erkoç T.

İzmir Mathematics Days - IV, 15 - 17 June 2022, pp.25

#### VII. **Classification of Solvable Groups Having Few Imprimitve Irreducible Characters**

Erkoç T., Çınarcı B.

6th Biennial International Group Theory Conference - 2021, Tamil Nadu, India, 4 - 06 March 2021, pp.10

#### VIII. **On products of irreducible characters**

Erkoç T., Çınarcı B.

Third International Conference of Mathematical Sciences, İstanbul, Turkey, 4 - 08 September 2019, pp.1

**IX. Derived Length and Character Degrees**

Çınarcı B., Erkoç T.

International Conference of Young Mathematicians, Kyiv, Ukraine, 6 - 08 June 2019, pp.1

**X. Monolithic Characters and Real Characters**

Erkoç T., Çınarcı B.

Antalya Algebra Days XXI, İzmir, Turkey, 15 - 19 May 2019, pp.1

**XI. On the Taketa inequality**

Çınarcı B., Erkoç T.

The Mediterranean International Conference of Pure&Applied Mathematics and Related Areas, Antalya, Turkey, 26 - 29 October 2018, pp.34

**XII. Groups and Irreducible Character Degrees**

Erkoç T.

International Conference on Recent Advances in Pure and Applied Mathematics, Antalya, Turkey, 6 - 09 November 2014, pp.105

**XIII. On the Character Degrees of Solvable Groups**

Erkoç T.

International conference on Algebra and Number Theory, Samsun, Turkey, 5 - 08 August 2014, pp.23

**XIV. Rational Permutation Groups**

Erkoç T.

2nd Biennial Group Theory Conference, İstanbul, Turkey, 1 - 04 September 2013, pp.101

**XV. Rational Transitive Subgroups of Symmetric Groups**

Erkoç T.

International Conference on Algebra in Honour of Patrick SMITH and John CLARK's 70th Birthdays, Balıkesir, Turkey, 1 - 04 August 2013, pp.63-64

**XVI. Frobenius Q-Groups and 2-Transitive Frobenius Q-Groups**

Erkoç T.

International Conference of Mathematical Sciences, İstanbul, Turkey, 1 - 04 October 2009, pp.371

## Supported Projects

Erkoç T., Çınarcı B., TUBITAK Project, Az Sayıda İmprimitif İndirgenemez Karaktere Sahip Sonlu Çözülebilir Grupların Sınıflandırılması, 2020 - 2021

ERKOÇ T., ÇINARCI B., Project Supported by Higher Education Institutions, İndirgenemez Karakter Dereceleri ve Türev Uzunluğu, 2017 - 2019

ERKOÇ T., Project Supported by Higher Education Institutions, Rational permutation groups containing a full cycle, 2014 - 2017

ERKOÇ T., Project Supported by Higher Education Institutions, On the character degrees of solvable groups, 2014 - 2014

## Memberships / Tasks in Scientific Organizations

Türk Matematik Derneği, Member, 1999 - Continues

## Scientific Research / Working Group Memberships

Research at UW-Madison in Algebra, University of Wisconsin-Madison, Amerika Birleşik Devletleri, [https://www.math.wisc.edu/wiki/index.php/Research\\_at\\_UW-Madison\\_in\\_Algebra](https://www.math.wisc.edu/wiki/index.php/Research_at_UW-Madison_in_Algebra), 2010 - 2011

## **Non Academic Experience**

The University of Wisconsin, Madison