

## Prof. Erdal KARADUMAN

### Personal Information

Office Phone: [+90 442 231 4317](tel:+904422314317)

Fax Phone: [+90 442 231 4109](tel:+904422314109)

Web: <https://avesis.atauni.edu.tr/eduman>

Address: ATATÜRK ÜNİVERSİTESİ FEN FAKÜLTESİ MATEMATİK BÖLÜMÜ ERZURUM

### International Researcher IDs

ScholarID: tROistcAAAAJ

ORCID: 0000-0001-7915-1036

Yoksis Researcher ID: 2507

### Foreign Languages

English, B1 Intermediate

### Dissertations

Doctorate, Sonlu Gruplarda 2-basamak Fibonacci Dizileri , Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 2002

Postgraduate, Alt Grup Temsilleri ve Yan Küme Hesaplamaları”, Doç. Dr. Hüseyin AYDIN , Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 1998

### Research Areas

Mathematics, Group Theory and Generalizations, Natural Sciences

### Academic Titles / Tasks

Professor, Ataturk University, Fen Fakültesi, Matematik, 2011 - Continues

Associate Professor, Ataturk University, Fen Fakültesi, Matematik, 2006 - 2011

Assistant Professor, Ataturk University, Fen Fakültesi, Matematik, 2002 - 2006

Research Assistant, Ataturk University, Fen Fakültesi, Matematik, 1995 - 2002

### Academic and Administrative Experience

Director of Continuing Education Center, Ataturk University, Fen Fakültesi, Matematik, 2022 - Continues

Head of Department, Ataturk University, Fen Fakültesi, Matematik, 2011 - Continues

Atatürk Üniversitesi, Aktüerya Bilimleri Bölümü, 2013 - 2016

Vice Dean, Ataturk University, Fen Fakültesi, 2012 - 2016

### Courses

Öğretmenlik Uygulaması, Undergraduate, 2023 - 2024  
ALGEBRAIC STRUCTURE II, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022  
Linear Algebra II, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022  
Abstract Algebra II, Undergraduate, 2023 - 2024, 2021 - 2022  
LINEAR ALGEBRA, Undergraduate, 2023 - 2024, 2022 - 2023  
INTRODUCTION TO ALGEBRA, Undergraduate, 2023 - 2024, 2022 - 2023  
LINEAR ALGEBRA I, Undergraduate, 2023 - 2024, 2022 - 2023  
ABSTRACT ALGEBRA I, Undergraduate, 2023 - 2024, 2022 - 2023  
ALGEBRAIC STRUCTURE I, Postgraduate, 2023 - 2024, 2022 - 2023, 2020 - 2021  
Soyut Cebir II, Undergraduate, 2020 - 2021  
Abstract Algebra, Undergraduate, 2021 - 2022  
Abstract Algebra I, Undergraduate, 2021 - 2022  
Algebraic Structures I, Postgraduate, 2021 - 2022  
Linear Algebra I, Undergraduate, 2021 - 2022  
Soyut Cebir II, Undergraduate, 2019 - 2020  
Mathematics I, Undergraduate, 2020 - 2021  
Cebirsel Yapılar II, Postgraduate, 2019 - 2020

## Advising Theses

Karaduman E., Sonlu merkezleyici zincirine sahip grupların cebirsel yapısı, Doctorate, T.ÇAKMAK(Student), 2018  
KARADUMAN E., Sonlu Gruplarda Padovan Dizileri", Atatürk Üniversitesi, Doctorate, S.TAŞ(Student), 2016  
KARADUMAN E., Hecke Grupları ve Fibonacci Dizisi, Postgraduate, F.YATKIN(Student), 2013  
KARADUMAN E., K-Fibonacci Dizisi, Polinomları ve Bunların Türevleri, Postgraduate, T.ÇAKMAK(Student), 2012  
KARADUMAN E., Sonlu Polyhedral ve Binary Polyhedral Gruplardaki k-nacci Dizileri, Doctorate, Ö.DEVECİ(Student), 2010  
KARADUMAN E., Maksimal Devirli Alt Gruplara Sahip Sonlu p-Grupların Sınıflandırılması, Postgraduate, S.TAŞ(Student), 2010

## Jury Memberships

Associate Professor Exam, Associate Professor Exam, Ataturk University, December, 2023  
Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Batman Üniversitesi, October, 2023  
Doctorate, Doctorate, Kafkas Üniversitesi, December, 2022  
Associate Professor Exam, Associate Professor Exam, ÜAK, December, 2022  
Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Karadeniz Teknik Üniversitesi, January, 2022  
Doctorate, Doctorate, Erzincan Binali Yıldırım Üniversitesi, July, 2021  
Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Recep Tayyip Erdoğan Üniversitesi, June, 2021  
Doctorate, Erdal Karaduman, Kafkas Üniversitesi, February, 2019  
Associate Professor Exam, Doçentlik Sınavı, ÜAK, October, 2017

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

- I. ON THE ADJACENCY-PELL NUMBERS  
KARADUMAN E., DEVECİ Ö.

- UTILITAS MATHEMATICA, vol.113, pp.191-207, 2019 (SCI-Expanded)
- II. **The adjacency-Jacobsthal-Hurwitz sequences in groups**  
 DEVECİ Ö., KARADUMAN E.  
 COMMUNICATIONS IN ALGEBRA, vol.46, no.9, pp.3833-3839, 2018 (SCI-Expanded)
  - III. **The Fibonacci-Circulant Sequences and Their Applications**  
 DEVECİ Ö., KARADUMAN E., Campbell C. M.  
 IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.41, pp.1033-1038, 2017 (SCI-Expanded)
  - IV. **On the Padovan p-numbers**  
 DEVECİ Ö., KARADUMAN E.  
 HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.46, no.4, pp.579-592, 2017 (SCI-Expanded)
  - V. **Lehmer Sequences in Finite Groups**  
 Deveci O., Karaduman E.  
 UKRAINIAN MATHEMATICAL JOURNAL, vol.68, no.2, pp.193-202, 2016 (SCI-Expanded)
  - VI. **THE JACOBSTHAL SEQUENCES IN FINITE GROUPS**  
 Deveci O., Karaduman E., Saglam G.  
 BULLETIN OF THE IRANIAN MATHEMATICAL SOCIETY, vol.42, no.1, pp.79-89, 2016 (SCI-Expanded)
  - VII. **The Pell-Padovan p-Sequences and Its Applications**  
 DEVECİ Ö., Akuzum Y., KARADUMAN E.  
 UTILITAS MATHEMATICA, vol.98, pp.327-347, 2015 (SCI-Expanded)
  - VIII. **The Generalized Pell p-Sequences in Groups**  
 DEVECİ Ö., Akdeniz M., KARADUMAN E.  
 ARS COMBINATORIA, vol.120, pp.383-401, 2015 (SCI-Expanded)
  - IX. **The Pell Sequences in Finite Groups**  
 DEVECİ Ö., KARADUMAN E.  
 UTILITAS MATHEMATICA, vol.96, pp.263-276, 2015 (SCI-Expanded)
  - X. **The Padovan Sequences in Finite Groups**  
 Taş S., Karaduman E.  
 Chiang Mai Journal Of Science, vol.41, pp.456-462, 2014 (SCI-Expanded)
  - XI. **The Fibonacci-Padovan sequences in finite groups**  
 Taş S., Deveci Ö., Karaduman E.  
 MAEJO INTERNATIONAL JOURNAL OF SCIENCE AND TECHNOLOGY, vol.8, no.3, pp.279-287, 2014 (SCI-Expanded)
  - XII. **The cyclic groups via the Pascal matrices and the generalized Pascal matrices**  
 DEVECİ Ö., KARADUMAN E.  
 LINEAR ALGEBRA AND ITS APPLICATIONS, vol.437, no.10, pp.2538-2545, 2012 (SCI-Expanded)
  - XIII. **The k-nacci sequences in  $Q(2n) \times(\phi) Z(2m)$**   
 DEVECİ Ö., Karaduman E.  
 MATHEMATICAL AND COMPUTER MODELLING, vol.55, pp.1450-1455, 2012 (SCI-Expanded)
  - XIV. **The Generalized Order-k Lucas Sequences in Finite Groups**  
 DEVECİ Ö., Karaduman E.  
 JOURNAL OF APPLIED MATHEMATICS, 2012 (SCI-Expanded)
  - XV. **On the k-Nacci Sequences in Finite Binary Polyhedral Groups**  
 DEVECİ Ö., KARADUMAN E., Campbell C. M.  
 ALGEBRA COLLOQUIUM, vol.18, pp.945-954, 2011 (SCI-Expanded)
  - XVI. **On the Basic k-nacci Sequences in Finite Groups**  
 DEVECİ Ö., Karaduman E.  
 DISCRETE DYNAMICS IN NATURE AND SOCIETY, 2011 (SCI-Expanded)
  - XVII. **THE PERIODS OF K-NACCI SEQUENCES IN CENTRO-POLYHEDRAL GROUPS AND RELATED GROUPS**  
 DEVECİ Ö., Karaduman E., Campbell C. M.  
 ARS COMBINATORIA, pp.193-210, 2010 (SCI-Expanded)
  - XVIII. **k-nacci sequences in some special groups of finite order**

KARADUMAN E., Aydin H.

MATHEMATICAL AND COMPUTER MODELLING, vol.50, pp.53-58, 2009 (SCI-Expanded)

**XIX. K-nacci Sequences in Finite Triangle Groups**

KARADUMAN E., Deveci O.

DISCRETE DYNAMICS IN NATURE AND SOCIETY, 2009 (SCI-Expanded)

**XX. On the period of Fibonacci sequences in nilpotent groups**

KARADUMAN E., YAVUZ U.

Applied Mathematics and Computation, vol.142, pp.321-332, 2003 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The Complex-type Cyclic-Pell Sequence and its Applications**  
ERDAĞ Ö., DEVECİ Ö., KARADUMAN E.  
TURKISH JOURNAL OF SCIENCE, 2022 (Peer-Reviewed Journal)
- II. **The complex-type Fibonacci p-Sequences**  
DEVECİ Ö., Shannon A. G., KARADUMAN E.  
ANNALS OF THE UNIVERSITY OF CRAIOVA, MATHEMATICS AND COMPUTER SCIENCE SERIES, vol.49, pp.260-269, 2022 (ESCI)
- III. **THE FIBONACCI-CIRCULANT SEQUENCES IN THE BINARY POLYHEDRAL GROUPS**  
KARADUMAN E., DEVECİ Ö.  
INTERNATIONAL JOURNAL OF GROUP THEORY, vol.10, no.3, pp.97-101, 2021 (ESCI)
- IV. **THE ADJACENCY-JACOBSTHAL SEQUENCE IN FINITE GROUPS**  
KARADUMAN E., Akuzum Y., DEVECİ Ö.  
JORDAN JOURNAL OF MATHEMATICS AND STATISTICS, vol.12, no.1, pp.51-58, 2019 (ESCI)
- V. **ON THE DOUBLE PELL SEQUENCES**  
DEVECİ Ö., KARADUMAN E.  
ROMAI J., v.15, no.1(2019), 37{44, vol.1, no.15, pp.37-44, 2019 (Peer-Reviewed Journal)
- VI. **On the derivatives of bivariate Fibonacci polynomials**  
Cakmak T., KARADUMAN E.  
NOTES ON NUMBER THEORY AND DISCRETE MATHEMATICS, vol.24, no.3, pp.37-46, 2018 (ESCI)
- VII. **The periods of the k-step Fibonacci and k-step Pellsequences in  $D_{2n} \times Z_{2i}$  and  $D_{2n} \times_{\alpha} Z_{2i}$**   
DEVECİ Ö., AVCI M., KARADUMAN E.  
Scientific Annals of the Alexandru Ioan Cuza University of Iași (New Series). Mathematics, vol.2, no.2018, pp.283-292, 2018 (Scopus)
- VIII. **THE JACOBSTHAL CIRCULANT SEQUENCES AND THEIR APPLICATIONS**  
DEVECİ Ö., KARADUMAN E.  
ROMAI J, vol.11, no.2, pp.77-88, 2015 (Peer-Reviewed Journal)
- IX. **The k step generalized Pell Padovan sequence in Finite Groups**  
TAŞ S., DEVECİ Ö., KARADUMAN E.  
New Trends in Mathematical Sciences, vol.4, no.2015, pp.43-49, 2015 (Peer-Reviewed Journal)
- X. **The Cyclic Groups via Bezout Matrices**  
DEVECİ Ö., Yeşim A., KARADUMAN E., Özgür E.  
Journal of Mathematics Research, vol.7, no.2, 2015 (Peer-Reviewed Journal)
- XI. **The Pell-Padovan Lengths and the Jacobsthal-Padovan Lengths of the Polyhedral and Binary Polyhedral Groups**  
DEVECİ Ö., VARGÜN Y. S., KARADUMAN E.  
Advances in Theoretical and Applied Mathematics, 2013 (Peer-Reviewed Journal)
- XII. **k nacci Sequences in Minimal Non Abelian p Groups**  
DEVECİ Ö., KARADUMAN E., COLÍN c., TAŞ S.  
Indian Journal of Mathematics, vol.52, pp.275-286, 2010 (Scopus)

## Books & Book Chapters

### I. Recurrence Sequences in Groups

DEVECİ Ö., KARADUMAN E.

Lanbert Acedemic, 2013

## Refereed Congress / Symposium Publications in Proceedings

### I. THE DOUBLE PELL SEQUENCE AND THEIR APPLICATIONS

DEVECİ Ö., KARADUMAN E.

XXXI International Conference PROBLEMS OF DECISION MAKING UNDER UNCERTAINTIES- PDMU-2018, 3 - 09 August 2018

### II. THE FIBONACCİ-CIRCULAN SEQUENCE IN THE BINARY POLYHEDRAL GROUPS

KARADUMAN E., DEVECİ Ö.

XXXI International Conference PROBLEMS OF DECISION MAKING UNDER UNCERTAINTIES- PDMU-2018, 3 - 09 August 2018

### III. Hipermerkezil Altgrupların Ek Zarfları,

ÇAKMAK T., ALTINEL T., KARADUMAN E.

30. Ulusal Matematik Sempozyumu, Turkey, 6 - 09 September 2017

### IV. THE ADJACENCY-JACOBSTHAL SEQUENCE IN FINITE GROUPS", , 28 August-1 Sep.2017, Ostravic-Czech Republic.

KARADUMAN E., AKÜZÜM Y., DEVECİ Ö.

23rd Czech and Slovak International Conference on Number Theory, 28 August - 01 September 2017

### V. THE ADJACENCY-JACOBSTHAL-HURWITZ SEQUENCE IN GROUPS", Ostravic-Czech Republic

DEVECİ Ö., KARADUMAN E.

23rd Czech and Slovak International Conference on Number Theory, 28 August - 01 September 2017

### VI. On The Lucas p-Sequences in Finite Polyhedral Groups

DEVECİ Ö., KARADUMAN E.

International Scientific Conference on Theoretical and Application Problems of Mathematics, 25 - 26 May 2017

### VII. The Recurrence Sequences via Sylvester Matrices

Karaduman E., Deveci O.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 19 - 25 September 2016, vol.1863

### VIII. The Jacobsthal circulant sequences and their Applications

DEVECİ Ö., KARADUMAN E.

23rd Conference of Applied and Industrial Mathematics - CAIM-2015, 17 - 20 September 2015

### IX. ENVELOPES IN Mc GROUPS

Tuba Ç., Tuna A., KARADUMAN E.

Antalya Cebir Günleri XVII 2015, 20 - 24 May 2015

## Scientific Refereeing

MANAS Journal of Engineering", Other Indexed Journal, October 2021

TURKISH JOURNAL OF MATHEMATICS, National Scientific Refreed Journal, February 2020

## Metrics

Publication: 44

Citation (WoS): 237

Citation (Scopus): 195

H-Index (WoS): 10

H-Index (Scopus): 9

## **Congress and Symposium Activities**

XXXI International Conference PROBLEMS OF DECISION MAKING UNDER UNCERTAINTIES- PDMU-2018, Attendee, Lankaran, Azerbaijan, 2018

XXXI International Conference PROBLEMS OF DECISION MAKING UNDER UNCERTAINTIES- PDMU-2018, Attendee, Lankaran, Azerbaijan, 2018

30. Ulusal Matematik Sempozyumu, Attendee, Ankara, Turkey, 2017

23rd Czech and Slovak International Conference on Number Theory, Attendee, Ostrava, Czech Republic, 2017

23rd Czech and Slovak International Conference on Number Theory, Attendee, Ostrava, Czech Republic, 2017

## **Representation and Promotion Activities**

Institutional Representation, Atasem/Kik, Turkey, Antalya, 2023 - 2023

Institutional Representation, Açık ve Uzaktan Öğretim Fakültesi Dekanlığı Sınav Temsilcisi , Turkey, Yozgat, 2023 - 2023

Institutional Representation, Fırat Üniversitesi, Turkey, Elazığ, 2023 - 2023

Institutional Representation, ATASEM/KİK, Turkey, Aydın, 2023 - 2023

## **Non Academic Experience**

TUBİTAK, TÜBİTAK, BİDEB

Tübitak