# Prof. ERCAN ALTINIŞIK

#### **Personal Information**

Office Phone: +90 312 202 1070 Email: ealtinisik@gazi.edu.tr

Web: https://avesis.gazi.edu.tr/ealtinisik

#### **International Researcher IDs**

ScholarID: drVLAikAAAAJ ORCID: 0000-0002-0476-9429

Publons / Web Of Science ResearcherID: AHA-2706-2022

ScopusID: 8870022800

Yoksis Researcher ID: 108782



#### **Education Information**

Doctorate, Selcuk University, Institute Of Science, Matematik (Dr), Turkey 1998 - 2001 Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik Eğitimi (Yl), Turkey 1994 - 1998

Undergraduate, Dokuz Eylul University, Buca Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 1990 - 1994

## Foreign Languages

English, C1 Advanced

## **Dissertations**

Doctorate, Hemen-hemen Hilbert-Smith matrislerinin karakterizasyonu, Selcuk University, Fen Bilimleri Enstitüsü, Matematik (Dr), 2001

Postgraduate, Complex curves in R4, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik Eğitimi (Yl), 1997

#### **Research Areas**

Linear and Multilinear Algebra: Matrix Theory, Number Theory

# **Academic Titles / Tasks**

Professor, Gazi University, Fen Fakültesi, Matematik, 2017 - Continues

Associate Professor, Gazi University, Fen Fakültesi, Matematik, 2010 - 2017

Assistant Professor, Gazi University, Fen Fakültesi, Matematik, 2003 - 2010

Assistant Professor, Selcuk University, Akören Ali Rıza Ercan Vocational School, Department Of Accounting And Tax

Department, 2001 - 2003

Lecturer, Selcuk University, Akören Ali Rıza Ercan Vocational School, Department Of Accounting And Tax Department,

## Academic and Administrative Experience

Director of the Center, Gazi University, Araştırma ve Uygulama Merkezleri, Ölçme ve Değerlendirme Uygulama ve Araştırma Merkezi, 2021 - Continues

Gazi University, Fen Fakültesi, Matematik Bölümü, 2012 - 2014

Farabi Program Department Coordinator, Gazi University, Fen Fakültesi, Matematik, 2009 - 2012

Member of ADEK Commission, Gazi University, Fen Fakültesi, 2011 - 2011

Selcuk University, Akören Ali Rıza Ercan Meslek Yüksekokulu, 1998 - 2002

#### Courses

CALCULUS II, Undergraduate, 2023 - 2024 ABSTRACT ALGEBRA, Undergraduate, 2023 - 2024 Number Theory, Undergraduate, 2024 - 2025 CALCULUS I, Undergraduate, 2024 - 2025

## **Advising Theses**

ALTINIŞİK E., Sıngularıty Of Lcm Matrices On Gcd Closed Sets, Postgraduate, T.ALTINTAŞ(Student), 2019

ALTINIŞİK E., Lattice-Theoretic Generalization Of The Lehmer Matrix, Postgraduate, F.YAĞCI(Student), 2017

ALTINIŞIK E., Divisibility Problem Between Of Gcd And Lcm Matrices, Postgraduate, M.BURAK(Student), 2015

ALTINIŞIK E., Proof Of Ilmonen-Haukkanen-Merikoski Conjecture, Postgraduate, A.KESKİN(Student), 2015

ALTINIŞIK E., Meet and join matrices, Postgraduate, M.GENÇ(Student), 2014

ALTINIŞIK E., Applications of GCD and LCM matrices, Postgraduate, A.ÇOŞKUN(Student), 2011

ALTINIŞİK E., Möbius inversiyon formülü, genelleştirilmeleri ve uygulamaları, Postgraduate, M.YILDİZ(Student), 2010

ALTINIŞIK E., MÖBIUS INVERSION FORMULA, ITS GENERALIZATIONS AND APPLICATIONS, Postgraduate,

M.YILDIZ(Student), 2010

ALTINIŞIK E., Dirichlet serileri, Postgraduate, P.POŞPOŞ(Student), 2008

#### Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, April, 2022 Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Bursa Teknik Üniversitesi, January, 2022

Associate Professor Exam, Associate Professor Exam, Gazi University, October, 2021

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ankara Üniversitesi, August, 2021

Associate Professor Exam, Associate Professor Exam, Gazi University, May, 2021

Associate Professor Exam, Associate Professor Exam, Gazi University, May, 2021

Doctoral Examination, Doctoral Examination, Gazi Üniversitesi, December, 2020

Post Graduate, Post Graduate, Gazi Üniversitesi, December, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ankara Üniversitesi, November, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Çankırı Karatekin Üniversitesi, October, 2020

Associate Professor Exam, Associate Professor Exam, Ankara Üniversitesi, October, 2020

Doctoral Examination, Doctoral Examination, Gazi Üniversitesi, September, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Gazi Üniversitesi, July, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Trakya Üniversitesi, May, 2020 Doctorate, Doctorate, Gazi Üniversitesi, May, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ankara Üniversitesi, March, 2020

Associate Professor Exam, Associate Professor Exam, Gazi University, October, 2019

Associate Professor Exam, Associate Professor Exam, Gazi University, October, 2018

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

I. Non-divisibility of LCM matrices by GCD matrices on gcd-closed sets

ALTINIŞIK E., Yildiz M., Keskin A.

LINEAR ALGEBRA AND ITS APPLICATIONS, vol.516, pp.47-68, 2017 (SCI-Expanded)

II. On a conjecture of Ilmonen, Haukkanen and Merikoski concerning the smallest eigenvalues of certain GCD related matrices

ALTINIŞIK E., Keskin A., Yildiz M., Demirbuken M.

LINEAR ALGEBRA AND ITS APPLICATIONS, vol.493, pp.1-13, 2016 (SCI-Expanded)

III. ON BOUNDS FOR THE SMALLEST AND THE LARGEST EIGENVALUES OF GCD AND LCM MATRICES ALTINIŞIK E., BÜYÜKKÖSE Ş.

MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.19, no.1, pp.117-125, 2016 (SCI-Expanded)

IV. A proof of a conjecture on monotonic behavior of the smallest and the largest eigenvalues of a number theoretic matrix

ALTINIŞIK E., BÜYÜKKÖSE Ş.

LINEAR ALGEBRA AND ITS APPLICATIONS, vol.471, pp.141-149, 2015 (SCI-Expanded)

V. On inverses of GCD matrices associated with multiplicative functions and a proof of the Hong-Loewy conjecture

Altinisik E.

LINEAR ALGEBRA AND ITS APPLICATIONS, vol.430, no.4, pp.1313-1327, 2009 (SCI-Expanded)

VI. ON THE MATRIX NORMS OF A GCD RELATED MATRIX

Altinisik E.

MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.11, no.4, pp.635-646, 2008 (SCI-Expanded)

VII. On the representation of k-generalized Fibonacci and Lucas numbers

Ocal A., TUĞLU N., Altinisik E.

APPLIED MATHEMATICS AND COMPUTATION, vol.170, no.1, pp.584-596, 2005 (SCI-Expanded)

VIII. GCD matrices, posets, and nonintersecting paths

Altinisik E., Sagan B., TUĞLU N.

LINEAR & MULTILINEAR ALGEBRA, vol.53, no.2, pp.75-84, 2005 (SCI-Expanded)

IX. A note on bounds for norms of the reciprocal LCM matrix

Altinisik E., TUĞLU N., Haukkanen P.

MATHEMATICAL INEQUALITIES & APPLICATIONS, vol.7, no.4, pp.491-496, 2004 (SCI-Expanded)

X. On the almost Hilbert-Smith matrices

Tasci D., Altinisik E.

FIBONACCI QUARTERLY, vol.40, no.4, pp.339-344, 2002 (SCI-Expanded)

#### Articles Published in Other Journals

I. Mestre's Finite Field Method for Searching Elliptic Curves with High Ranks

Dalkılıç Ş., Altinisik E.

Journal of New Theory, no.47, pp.20-27, 2024 (Peer-Reviewed Journal)

II. Integral Circulant Graphs and So's Conjecture

Altınışık E., Aydın S. B.

Turkish Journal of Mathematics and Computer Science, vol.16, no.1, pp.169-176, 2024 (Peer-Reviewed Journal)

III. On the smallest singular value in the class of unit lower triangular matrices with entries in [-a, a] ALTINIŞIK E.

SPECIAL MATRICES, vol.9, no.1, pp.297-304, 2021 (ESCI)

IV. THE DISTANCE MATRIX AND THE DISTANCE ENERGY OF THE POWER GRAPHS OF C-n AND D-2n BÜYÜKKÖSE Ş., Varlioglu N. M., ALTINIŞIK E.

JOURNAL OF SCIENCE AND ARTS, no.4, pp.823-838, 2019 (ESCI)

V. SOME RESULTS AND A CONJECTURE ON CERTAIN SUBCLASSES OF GRAPHS ACCORDING TO THE RELATIONS AMONG CERTAIN ENERGIES, DEGREES AND CONJUGATE DEGREES OF GRAPHS ALTINIŞIK E., Varlioglu N. M.

JOURNAL OF SCIENCE AND ARTS, no.4, pp.811-822, 2019 (ESCI)

VI. A NOTE ON THE SINGULARITY OF LCM MATRICES ON GCD - CLOSED SETS WITH 9 ELEMENTS ALTINIŞIK E., Altintas T.

JOURNAL OF SCIENCE AND ARTS, no.3, pp.413-422, 2017 (ESCI)

VII. A Lattice-theoretic Generalization of the Lehmer Matrix

ALTINISIK E., Yagci F., Yildiz M.

GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.3, pp.675-679, 2016 (ESCI)

VIII. Determinants of Circulant Matrices with Some Certain Sequences

ALTINISIK E., BÜYÜKKÖSE Ş.

GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.28, no.1, pp.59-63, 2015 (ESCI)

IX. Determinants and inverses of circulant matrices with complex Fibonacci numbers

ALTINIŞIK E., Yalcin N. F., BÜYÜKKÖSE Ş.

SPECIAL MATRICES, vol.3, no.1, pp.82-90, 2015 (ESCI)

X. Improved Bounds for the Extremal Non-Trivial Laplacian Eigenvalues

BÜYÜKKÖSE S., ALTINISIK E., Yalcin F.

GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.28, no.1, pp.65-68, 2015 (ESCI)

XI. Determinant and Inverse of Meet and Join Matrices

ALTINIŞIK E., TUĞLU N., Penti H.

International Journal of Mathematics and Mathematical Sciences, vol.2007, pp.1-11, 2007 (Scopus)

XII. Inverses of S f and S f on gcd closed sets and lcm closed sets

ÖÇAL A. A., ALTINIŞIK E., TUĞLU N.

International Journal of Analyzing Methods of Components and Combinatorial Biology in Mathematics, vol.1, no.1, pp.45-57, 2007 (Peer-Reviewed Journal)

XIII. Gcd matrisinin karakteristik polinomu üzerine

Altınışık E.

Anadolu University Journal of Science and Technology, vol.3, no.3, pp.401-404, 2002 (Peer-Reviewed Journal)

XIV. On a generalization of the reciprocal LCM matrix

ALTINIŞIK E., TAŞCI D.

COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.51, no.2, pp.37-46, 2002 (Peer-Reviewed Journal)

# Refereed Congress / Symposium Publications in Proceedings

I. Some Conjectures on the Smallest Eigenvalues of Certain Positive Definite Matrices ALTINISIK E.

International Conference on Mathematics and Mathematics Education, 12 - 14 May 2016

II. The Bourque Ligh Conjecture of LCM matrices

YILDIZ M., ALTINIŞIK E.

International Conference on Mathematics and Mathematics Education, 12 - 14 May 2016

III. On a Conjecture on the Smallest Eigenvalues of Some Special Positive Definite Matrices ALTINIŞIK E.

AMAT 20153rd International Conference on Applied Mathematics and Approximation Theory (AMAT2015), Ankara, Turkey, 28 - 31 May 2015

IV. A Proof of a Conjecture on Monotonic Behavior of the Largest Eigenvalue of a Number-theoretic Matrix

ALTINIŞIK E., BÜYÜKKÖSE Ş.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 22 - 28 September 2014, vol.1648

### Activities in Scientific Journals

Asian Journal of Mathematics and Applications, Committee Member, 2020 - Continues Advances in Linear Algebra & Matrix Theory, Committee Member, 2015 - Continues

# Memberships / Tasks in Scientific Organizations

Türk Matematik Derneği, Member, 2001 - Continues, Turkey

#### Scientific Refereeing

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, tübitak, Turkey, December 2020
TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Tübitak, Turkey, December 2020
TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, tübitak, Turkey, December 2020
TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, tübitak, Turkey, December 2020
Project Supported by Higher Education Institutions, BAP Research Project, Amasya University, Turkey, July 2020
Adances in Linear Algebra and Matrix theory, Other journals, April 2020
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, Journal Indexed in SCI-E, April 2020
TURKISH JOURNAL OF MATHEMATICS, Journal Indexed in SCI-E, March 2020
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, Journal Indexed in SCI-E, March 2020
TURKISH JOURNAL OF MATHEMATICS, Journal Indexed in SCI-E, February 2020
Gazi University Journal of Science, Journal Indexed in ESCI, February 2020

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, Journal Indexed in SCI-E, January 2020

#### **Metrics**

Publication: 41 Citation (WoS): 100 Citation (Scopus): 97 H-Index (WoS): 6 H-Index (Scopus): 6