

## Assoc. Prof. AYHAN DİL

### Personal Information

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**Address:** Akdeniz University, Faculty of Science, Department of Mathematics, Antalya, 07058, Turkey

### International Researcher IDs

ORCID: 0000-0003-1273-6704

Yoksis Researcher ID: 183747

### Education Information

Post Doctorate, Middle East Technical University, Faculty Of Arts And Sciences, Matematik, Turkey 2015 - 2017

Post Doctorate, Ihsan Dogramaci Bilkent University, Faculty Of Science, Matematik, Turkey 2010 - 2011

Doctorate, Akdeniz University, Institute Of Science, Matematik, Turkey 2005 - 2010

Postgraduate, Akdeniz University, Institute Of Science, Matematik, Turkey 2004 - 2005

Undergraduate, Akdeniz University, Fen Edebiyat Fakültesi, Matematik, Turkey 1999 - 2003

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, NMK Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2017

Education Management and Planning, WAMS research school: Topics in Analytic and Transcendental Number Theory, Institute for Advanced Studies in Basic Sciences (IASBS)-Zanjan, 2017

Education Management and Planning, CIMPA-ICTP research school on Artin L-functions, Artin's primitive roots conjecture and applications, CIMPA-ICTP, 2017

Education Management and Planning, NMK Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2016

Education Management and Planning, NMK Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2015

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2014

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2013

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2012

Education Management and Planning, Summer School: Four Faces of Number Theory, Julius-Maximilians-Universität Würzburg, 2012

Education Management and Planning, Workshop on Demazure Characters, Akdeniz University, 2012

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2011

Education Management and Planning, Introduction to Advanced Number Theory Workshop, Nesin Mathematics Village,

2011

Education Management and Planning, Workshop on Algebraic Numbers and L-Functions, Akdeniz University, 2010

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2010

Education Management and Planning, Number Theory Workshop, Nesin Mathematics Village, 2010

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2009

Education Management and Planning, Winter School on Explicit Methods in Number Theory, Debrecen University, 2009

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2008

Education Management and Planning, Stieltjes & Diamant Onderwijsweek, Solvability of Diophantine Equations, Leiden University, 2007

Education Management and Planning, Ph.D. Courses in Mathematics, Department of Mathematics, Debrecen University, 2007

Education Management and Planning, Summer School, Turkish Mathematical Society, Turkish Mathematical Society, 2006

## Dissertations

Doctorate, Zeta Fonksiyonları, Özel Bazı Polinom Aileleri ve Genelleştirmeleri Üzerine, Akdeniz University, Institute of Science, Matematik, 2010

Postgraduate, Dedekind Toplamlarının Ortalama Değerleri, Akdeniz University, Institute of Science, Matematik, 2005

## Research Areas

Mathematics, Sequences, Series, Summability, Functions of a Complex Variable, Special Functions, Number Theory, Natural Sciences

## Academic Titles / Tasks

Associate Professor, Akdeniz University, Faculty Of Science, Department Of Mathematics, 2021 - Continues

Assistant Professor, Akdeniz University, Faculty Of Science, Department Of Mathematics, 2018 - 2021

Assistant Professor, Akdeniz University, Faculty Of Science, Department Of Mathematics, 2011 - 2018

Other, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2015 - 2017

Research Assistant, Akdeniz University, Institute Of Science, -, 2005 - 2010

## Courses

Yüksek Lisans Tezi, Postgraduate, 2020 - 2021

Analitik Fonksiyonlar Teorisinde Seçme Konular II, Postgraduate, 2019 - 2020, 2021 - 2022

Analiz II (2. Şube), Undergraduate, 2019 - 2020, 2020 - 2021

Danışmanlık, Doctorate, 2014 - 2015, 2019 - 2020, 2020 - 2021

Uzmanlık Alan Dersi, Postgraduate, 2019 - 2020, 2020 - 2021

Bitirme Çalışması I, Undergraduate, 2011 - 2012, 2012 - 2013, 2014 - 2015, 2019 - 2020, 2020 - 2021

Analitik Fonksiyonlar Teorisinde Seçme Konular I, Postgraduate, 2019 - 2020, 2020 - 2021

Seminer I, Postgraduate, 2020 - 2021

Danışmanlık, Doctorate, 2016 - 2017, 2018 - 2019

Reel Analiz II, Undergraduate, 2017 - 2018, 2018 - 2019

Ayrık Matematik Şube I, Undergraduate, 2017 - 2018, 2018 - 2019

Doktora Tezi, Doctorate, 2018 - 2019

Uzmanlık Alan Dersi, Doctorate, 2016 - 2017, 2018 - 2019

Ayrık Matematik Şube II, Undergraduate, 2017 - 2018, 2018 - 2019

Danışmanlık, Postgraduate, 2018 - 2019  
Bitirme Çalışması I, Undergraduate, 2017 - 2018, 2018 - 2019  
Uzmanlık Alan Dersi, Postgraduate, 2018 - 2019  
Danışmanlık, Doctorate, 2018 - 2019  
Diferansiyel Denklemler Şube II, Undergraduate, 2018 - 2019  
Diferansiyel Denklemler Şube I, Undergraduate, 2018 - 2019  
Bilgisayar Teknolojileri Kullanımı, Undergraduate, 2017 - 2018  
Doktora Tezi, Doctorate, 2018 - 2019  
Danışmanlık, Doctorate, 2017 - 2018  
Sayılar Teorisine Giriş, Undergraduate, 2011 - 2012, 2012 - 2013, 2016 - 2017, 2017 - 2018  
Matematik II, Undergraduate, 2016 - 2017  
Danışmanlık, Doctorate, 2017 - 2018  
Matematik II, Undergraduate, 2016 - 2017  
Bitirme Çalışması II (2. öğretim), Undergraduate, 2016 - 2017  
Danışmanlık, Doctorate, 2016 - 2017  
Bitirme Çalışması II, Undergraduate, 2016 - 2017  
Diferansiyel Denklemler I, Undergraduate, 2013 - 2014, 2017 - 2018  
Diferansiyel Denklemler II, Undergraduate, 2014 - 2015  
Matematikte Uzmanlık Alan Dersi, Doctorate, 2014 - 2015  
Sayılar Teorisine Giriş (2. öğretim), Undergraduate, 2014 - 2015  
Sayılar Teorisine Giriş, Undergraduate, 2014 - 2015  
Diferansiyel Denklemler II (2. öğretim), Undergraduate, 2014 - 2015  
Hipergeometrik serilere giriş, Doctorate, 2014 - 2015  
Seminer, Postgraduate, 2013 - 2014  
Diferansiyel Denklemler I (2. öğretim), Undergraduate, 2014 - 2015  
Diferansiyel Denklemler , Undergraduate, 2014 - 2015  
Bitirme Çalışması I (2. öğretim), Undergraduate, 2012 - 2013, 2014 - 2015  
Diferansiyel Denklemler II, Undergraduate, 2013 - 2014  
Analitik Kombinatorik, Doctorate, 2014 - 2015  
Matematikte Uzmanlık Alan Dersi, Postgraduate, 2012 - 2013, 2013 - 2014  
Diferansiyel Denklemler II (2. öğretim), Undergraduate, 2013 - 2014  
Bitirme Çalışması I (2. öğretim), Undergraduate, 2013 - 2014  
Özel Fonksiyonlar II, Postgraduate, 2012 - 2013  
Sayılar Teorisine Giriş (2. öğretim), Undergraduate, 2011 - 2012, 2012 - 2013  
Bitirme Çalışması I, Undergraduate, 2013 - 2014  
Diferansiyel Denklemler I (2. öğretim), Undergraduate, 2013 - 2014  
Özel Fonksiyonlar I, Postgraduate, 2012 - 2013  
Mühendislik Matematiği, Undergraduate, 2011 - 2012

## Advising Theses

Dil A., Kombinatoriyel evrik dönüşümlerle özel bazı sayı dizilerinin analizi, Postgraduate, H.AHMED(Student), 2022  
Dil A., BAZI DEJENERE ÖZEL SAYILAR VE POLİNOMLAR, Doctorate, S.Bilgiç(Student), 2021  
Dil A., Türev ve Fark Operatörlerinin Dizi ve Seri Analizindeki Uygulamaları, Postgraduate, E.Muniroğlu(Student), 2018  
Dil A., Riordan Sıraları Yöntemi Üzerine, Postgraduate, Ö.Koyuncuoğlu(Student), 2014

## Jury Memberships

Doctorate, Jüri Üyesi (Danışman), Akdeniz Üniversitesi Fen Bilimleri Enstitüsü, June, 2021

Competition, 2021 yılı TÜBİTAK 2204 B Ortaokul Öğrencileri Araştırma Projeleri Bölge Yarışması Konya Bölgesi Matematik Alanı Jüri Üyeliği, Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, April, 2021

Competition, Tübitak Ortaokul Öğrencileri Araştırma Projeleri Yarışması, Tübitak, February, 2019

Post Graduate, Dr. Öğr. Üyesi Ayhan Dil/ Ar. Gör. Erkan Muniroğlu'nun yüksek lisans tez savunması, Akdeniz Üniversitesi, July, 2018

Competition, Akdeniz Üniversitesi ve Antalya İl Milli Eğitim Müdürlüğü Liseler Arası Matematik ve Fen Bilimleri Proje Yarışması, Akdeniz Üniversitesi ve Antalya İl Milli Eğitim Müdürlüğü, May, 2018

Competition, Tübitak 49. Ortaöğrenim proje yarışması , Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, April, 2018

Competition, Tübitak 48. Ortaöğrenim proje yarışması , Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, April, 2017

Competition, Tübitak 47. Ortaöğrenim proje yarışması , Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, April, 2016

Competition, Tübitak 46. Ortaöğrenim proje yarışması , Türkiye Bilimsel ve Teknolojik Araştırma Kurumu, April, 2015

Doctorate, Yrd. Doç. Dr. Ayhan Dil/ Ar. Gör. Seçil Çeken'in doktora tez savunması, Akdeniz Üniversitesi, June, 2014

Post Graduate, Yrd. Doç. Dr. Ayhan Dil / Özlem Koyuncuoğlu'nun yüksek lisans tez savunması, Akdeniz Üniversitesi, June, 2014

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

- I. **Generalized harmonic numbers via poly-Bernoulli polynomials**  
Kargin L., Cenkcı M., Dil A., Can M.  
PUBLICATIONES MATHEMATICAE, vol.100, no.3-4, pp.365-386, 2022 (Peer-Reviewed Journal)
- II. **Euler sums of generalized harmonic numbers and connected extensions**  
Can M., Kargin L., Dil A., Soylu G.  
APPLICABLE ANALYSIS AND DISCRETE MATHEMATICS, vol.0, pp.1-17, 2022 (Peer-Reviewed Journal)
- III. **On Evaluations of Euler-Type Sums of Hyperharmonic Numbers**  
Kargin L., Can M., Dil A., Cenkcı M.  
Bulletin of the Malaysian Mathematical Sciences Society, vol.45, no.1, pp.113-131, 2022 (Peer-Reviewed Journal)
- IV. **APPLICATIONS OF DERIVATIVE AND DIFFERENCE OPERATORS ON SOME SEQUENCES**  
DİL A., Muniroğlu E.  
APPLICABLE ANALYSIS AND DISCRETE MATHEMATICS, vol.14, no.2, pp.406-430, 2020 (Peer-Reviewed Journal)
- V. **On values of the Riemann zeta function at positive integers**  
DİL A., Boyadzhiev K. N. , ALİYEV İ.  
LITHUANIAN MATHEMATICAL JOURNAL, vol.60, no.1, pp.9-24, 2020 (Peer-Reviewed Journal)
- VI. **Evaluation of Euler-like sums via Hurwitz zeta values**  
DİL A., Mezo I., CENKCİ M.  
TURKISH JOURNAL OF MATHEMATICS, vol.41, no.6, pp.1640-1655, 2017 (Peer-Reviewed Journal)
- VII. **SHIFTED EULER-SEIDEL MATRICES**  
DİL A., Firengiz M. C.  
MISKOLC MATHEMATICAL NOTES, vol.18, no.1, pp.173-188, 2017 (Peer-Reviewed Journal)
- VIII. **Geometric polynomials: Properties and applications to series with zeta values**  
Boyadzhiev K. N. , Dil A.  
Analysis Mathematica, vol.42, no.3, pp.203-224, 2016 (Peer-Reviewed Journal)
- IX. **Euler sums of hyperharmonic numbers**  
DİL A., Boyadzhiev K. N.  
JOURNAL OF NUMBER THEORY, vol.147, pp.490-498, 2015 (Peer-Reviewed Journal)
- X. **Series with Hermite polynomials and applications**  
Boyadzhiev K. N. , DİL A.  
PUBLICATIONES MATHEMATICAE-DEBRECEN, vol.80, no.3-4, pp.385-404, 2012 (Peer-Reviewed Journal)
- XI. **POLYNOMIALS RELATED TO HARMONIC NUMBERS AND EVALUATION OF HARMONIC NUMBER SERIES**  
II  
DİL A., Kurt V.

- APPLICABLE ANALYSIS AND DISCRETE MATHEMATICS, vol.5, no.2, pp.212-229, 2011 (Peer-Reviewed Journal)
- XII. **Hyperharmonic series involving Hurwitz zeta function**  
Mező I., DİL A.  
JOURNAL OF NUMBER THEORY, vol.130, no.2, pp.360-369, 2010 (Peer-Reviewed Journal)
- XIII. **Euler-Seidel method for certain combinatorial numbers and a new characterization of Fibonacci sequence**  
Mező I., DİL A.  
CENTRAL EUROPEAN JOURNAL OF MATHEMATICS, vol.7, no.2, pp.310-321, 2009 (Peer-Reviewed Journal)
- XIV. **A symmetric algorithm for hyperharmonic and Fibonacci numbers**  
DİL A., Mező I.  
APPLIED MATHEMATICS AND COMPUTATION, vol.206, no.2, pp.942-951, 2008 (Peer-Reviewed Journal)

## Articles Published in Other Journals

- I. **On the Hyperharmonic Function**  
DİL A.  
SÜLEYMAN DEMİREL ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, vol.23, no.Özel Sayı, pp.187-193, 2019 (Peer-Reviewed Journal)
- II. **Generalized Euler-Seidel Method for Second Order Recurrence Relations**  
DİL A., Çetin Frengiz M.  
NOTES ON NUMBER THEORY AND DISCRETE MATHEMATICS, vol.20, no.2014-4, pp.21-32, 2014 (Peer-Reviewed Journal)
- III. **Polynomials Related to Harmonic Numbers and Evaluation of Harmonic Number Series I**  
DİL A., KURT V.  
INTEGERS, The Electronic Journal of Combinatorial Number Theory, vol.12, no.A38, pp.1-18, 2012 (Peer-Reviewed Journal)
- IV. **Investigating Geometric and Exponential Polynomials with Euler Seidel Matrices**  
DİL A., KURT V.  
JOURNAL OF INTEGER SEQUENCES, vol.14, no.4, pp.1146, 2011 (Peer-Reviewed Journal)
- V. **Applications of Euler Seidel matrices**  
DİL A., KURT V.  
Advanced Studies in Contemporary Mathematics, vol.18, no.2, pp.219-233, 2009 (Peer-Reviewed Journal)
- VI. **Algorithms for Bernoulli and Allied Polynomials**  
DİL A., KURT V., CENKÇİ M.  
JOURNAL OF INTEGER SEQUENCES, vol.10, no.5, pp.754, 2007 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Yalnızca Sayıları Seven Adam**  
Kömürcü D., DİL A.  
Nika Yayınevi, Ankara, 2021
- II. **Matematğin Sihirli Dünyası**  
DİL A.  
Nika Yayınevi, Ankara, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **Evaluation of Euler-like sums via Hurwitz zeta values**

DİL A.

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

**II. Geometric Polynomials Properties and Applications to Series with Zeta Values**

DİL A., Boyadzhiev K. N.

29th Journées Arithmétiques JA 2015, Debrecen, Hungary, 6 - 10 July 2015

## Other Publications

**I. Harmonik Serinin Iraksaklığı, Matematik Dünyası**

ALİYEV İ., DİL A.

Other, pp.31-38, 2012

**II. XIII. Ulusal Antalya Matematik Olimpiyatı, ikinci aşama sınavı (çözümler) -2008, Matematik Dünyası**

ALİYEV İ., ÖZDEMİR M., DİL A.

Other, pp.87-90, 2008

**III. XIII. Ulusal Antalya Matematik Olimpiyatı, Birinci Aşama Sınav Soruları -2008, Matematik Dünyası**

ALİYEV İ., ÖZDEMİR M., DİL A.

Other, pp.91-92, 2008

**IV. Asalların Sonsuzluğunun Yeni Bir Kanıtı (Daha!)**

DİL A.

Other, pp.69, 2007

## Memberships / Tasks in Scientific Organizations

American Mathematical Society, Member, 2010 - Continues

Türk Matematik Derneği, Member, 2007 - Continues

## Scientific Refereeing

AMS Mathematical Reviews, Other journals, April 2017

Turkish Journal of Mathematics, SCI Journal, April 2017

Turkish Journal of Mathematics, SCI Journal, February 2017

AMS Mathematical Reviews, Other journals, February 2017

Applicable Analysis and Discrete Mathematics, SCI Journal, January 2017

Mathematical Sciences and Applications E-Notes, Other Indexed Journal, December 2016

Boletín de la Sociedad Matemática Mexicana, Tercera Serie, Other Indexed Journal, November 2016

Cogent Mathematics, Other journals, March 2015

Journal de Théorie des Nombres de Bordeaux, SCI Journal, February 2015

AMS Mathematical Reviews, Other journals, January 2015

Applied Mathematics and Computation, SCI Journal, October 2014

AMS Mathematical Reviews, Other journals, January 2014

Journal of Integer Sequences, Other Indexed Journal, January 2014

World Journal of Modeling and Simulation, Other Indexed Journal, September 2013

AMS Mathematical Reviews, Other journals, June 2013

International Journal of the Physical Sciences, Other Indexed Journal, June 2013

The Electronic Journal of Combinatorial Number Theory, Other Indexed Journal, May 2013

Applicable Analysis and Discrete Mathematics, SCI Journal, March 2013

Journal of Integer Sequences, Other Indexed Journal, January 2013

AMS Mathematical Reviews, Other journals, January 2013  
Journal of Integer Sequences, Other Indexed Journal, March 2012

## Metrics

Publication: 28  
Citation (WoS): 144  
Citation (Scopus): 193  
H-Index (WoS): 7  
H-Index (Scopus): 8

## Congress and Symposium Activities

Journées Arithmétiques XXXI, Attendee, İstanbul, Turkey, 2019  
Journées Arithmétiques XXXI, Session Moderator, İstanbul, Turkey, 2019  
International Conference on Number Theory: Dedicated to the 70th Birthdays of Professors ANTANAS LAURINCİKAS and EUGENIJUS MANSTAVICIUS, Attendee, Plunge, Lithuania, 2018  
23rd Czech and Slovak International Conference on Number Theory, Attendee, Ostrava, Czech Republic, 2017  
29th National Mathematics Symposium, Attendee, Mersin, Turkey, 2016  
Seventeenth International Conference on Fibonacci Numbers and Their Applications, Attendee, Caen, France, 2016  
Conference-School on Discrete Mathematics and Computer Science (DIMACOS), Attendee, Sidi Ban-Al-Abbass, Algeria, 2015  
29th Journées Arithmétiques JA 2015, Attendee, Debrecen, Hungary, 2015  
International Conference on Algebra and Number Theory, Session Moderator, Samsun, Turkey, 2014  
International Conference on Algebra and Number Theory, Attendee, Samsun, Turkey, 2014  
Elementary and Analytic Number Theory (ELAZ), Attendee, Hildesheim, Germany, 2014  
9. Ankara Mathematics Days, Attendee, Ankara, Turkey, 2014  
XXVI. National Mathematics Symposium, Attendee, Diyarbakır, Turkey, 2013  
28th Journées Arithmétiques, Attendee, Grenoble, France, 2013  
Elementary and Analytic Number Theory (ELAZ), Attendee, Schney, Germany, 2012  
Fifteenth International Conference on Fibonacci Numbers and Their Applications, Attendee, Eger, Hungary, 2012  
Conference on Number Theory, Arithmetic and Algebraic Geometry, Attendee, Güzelyurt, Cyprus (Kktc), 2010  
XXII. National Mathematics Symposium, Attendee, İzmir, Matematik Köyü, Turkey, 2009  
Information Security and Cryptology Conference, Attendee, Ankara, Turkey, 2007  
Solvability of Diophantine Equations, Attendee, Leiden, Netherlands, 2007

## Scholarships

SCIence-Symbolic Computation Infrastructure for Europe, Research Visit Grant, Official Institutions of Foreign Countries, 2010 - Continues