

## Res. Asst. PhD ÜMMÜGÜLSÜN ÇAĞLAYAN

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### International Researcher IDs

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### Education Information

Doctorate, Karadeniz Technical University, Matematik, Turkey 2016 - 2022

Postgraduate, Karadeniz Technical University, -, Matematik, Turkey 2013 - 2016

Undergraduate, Ataturk University, Fen Fakültesi, Matematik, Turkey 2008 - 2012

### Foreign Languages

English, B2 Upper Intermediate

### Research Areas

Mathematics, Functional Analysis, Combinatorics, Number Theory, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Matematik, 2014 - Continues

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

- I. **On applications of Pell and Pell-Lucas numbers with matrix method**  
Akbaba Ü., Hikmet Değer A. H.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.44, no.6, pp.10703-10707, 2023 (SCI-Expanded)
- II. **Relation between matrices and the suborbital graphs by the special number sequences**  
Akbaba Ü., Değer A. H.  
TURKISH JOURNAL OF MATHEMATICS, vol.46, no.3, pp.753-767, 2022 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Özel Tam Sayı Dizilerinin Bazı Matris Uygulamaları**

ÇAĞLAYAN Ü.

Bilecik Seyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.10, no.1, pp.209-216, 2023 (Peer-Reviewed Journal)

- II. **AN ALGORITHM FOR THE VERTICES ON THE PATHS OF MINIMAL LENGTH IN THE SUBORBITAL GRAPHS**  
Akbaba Ü., Değer A. H., Berber T.  
Proceedings of the 6th International Conference on Computational Mathematics and Engineering Sciences (CMES-2022), vol.1, no.1, pp.250-255, 2022 (Conference Book)
- III. **Maximally Accretive Differential Operators of First Order in the Weighted Hilbert Spaces**  
AKBABA Ü., Al P. I.  
LOBACHEVSKII JOURNAL OF MATHEMATICS, vol.42, no.12, pp.2707-2713, 2021 (ESCI)
- IV. **Images of Some Discs Under the Linear Fractional Transformation of Special Continued Fractions**  
Akbaba Ü., Tuylu T., Değer A. H.  
CONFERENCE PROCEEDINGS OF SCIENCE AND TECHNOLOGY, vol.1, no.1, pp.232-237, 2021 (Peer-Reviewed Journal)
- V. **Maximally Dissipative Differential Operators of First Order in the Weighted Hilbert Space**  
Al P. I., AKBABA Ü.  
LOBACHEVSKII JOURNAL OF MATHEMATICS, vol.42, no.3, pp.490-495, 2021 (ESCI)
- VI. **On the Compactly Solvable Differential Operators for First Order**  
İpek Al P., Akbaba Ü.  
LOBACHEVSKII JOURNAL OF MATHEMATICS, vol.41, no.6, pp.1078-1086, 2020 (ESCI)
- VII. **The Generating Functions for Special Pringsheim Continued Fractions**  
Akbaba Ü., Değer A. H.  
Communications in Advanced Mathematical Sciences, vol.3, no.2, pp.74-81, 2020 (Peer-Reviewed Journal)
- VIII. **On Some Connections Between Suborbital Graphs and Special Sequences**  
AKBABA Ü., DEĞER A. H., TUYLU T.  
Turkish Journal of Mathematics and Computer Science, vol.10, pp.134-143, 2018 (Peer-Reviewed Journal)
- IX. **Some special values of vertices of trees on the suborbital graphs**  
DEĞER A. H., AKBABA Ü.  
AIP Conference Proceedings, vol.1926, no.20013, pp.1-6, 2018 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **On the Convergence Properties of p-Numerical Radii and p-Crawford Numbers Sequences**  
ÇAĞLAYAN Ü., İSMAİLOV Z.  
in: Current Studies in Sciences and Mathematics, , Editor, Platanus Publishing, pp.5-18, 2024
- II. **On The Continuity Properties of Davis-Wielandt Radius and Crawford Number Functions**  
ÇAĞLAYAN Ü., İSMAİLOV Z.  
in: Matematik Alanında Akademik Analizler, , Editor, Yaz Yayınları, pp.16-24, 2024

## Refereed Congress / Symposium Publications in Proceedings

- I. **On the Edge Conditions of the Some Suborbital Graphs on  $\mathbb{Q}^n$**   
Çağlayan Ü.  
15th Algebraic Hyperstructures and its Applications, İstanbul, Turkey, 28 - 30 July 2023, pp.62
- II. **AN ALGORITHM FOR THE VERTICES ON THE PATHS OF MINIMAL LENGTH IN THE SUBORBITAL GRAPHS**  
Akbaba Ü., Değer A. H., Berber T.  
THE SIXTH INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES (CMES-2022), Ordu, Turkey, 20 - 22 May 2022, pp.188

- III. **PELL AND PELL-LUCAS NUMBERS IN SUBORBITAL GRAPHS**  
Akbaba Ü., Değer A. H.  
THE SIXTH INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES (CMES-2022), Ordu, Turkey, 20 - 22 May 2022, pp.193
- IV. **Images of Some Discs Under the Linear Fractional Transformation of Special Continued Fractions**  
Akbaba Ü., Tuylu T., Değer A. H.  
18 th International Geometry Symposium, Malatya, Turkey, 12 - 13 July 2021, pp.186
- V. **Images of Minimal-Length Hyperbolic Paths on the Poincare Disc**  
Tuylu T., Akbaba Ü., Değer A. H.  
18 th International Geometry Symposium, Malatya, Turkey, 12 - 13 July 2021, pp.187
- VI. **The Farthest Vertices on the Suborbital Graphs via Hyperbolic Geometry**  
DEĞER A. H., AKBABA Ü., Gökcan İ., TUYLU T.  
17th International Geometry Symposium, Erzincan, Turkey, 19 - 22 June 2019, pp.130
- VII. **On Suborbital Graphs with Hyperbolic Geodesics and Entries of Matrices from Some Sequences**  
DEĞER A. H., AKBABA Ü., TUYLU T., Gökcan İ.  
17th International Geometry Symposium, Erzincan, Turkey, 19 - 22 June 2019, pp.129
- VIII. **On Suborbital Graphs and Matrices with Even Fibonacci and Lucas Numbers**  
AKBABA Ü., DEĞER A. H.  
The Mediterranean International Conference of Pure&Applied Mathematics and Related Areas, Antalya, Turkey, 26 - 29 October 2018, pp.64
- IX. **The Generating Functions of Recurrence Relation of the Path of Minimal Length on Suborbital Graphs**  
AKBABA Ü., DEĞER A. H., TUYLU T.  
INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS, Trabzon, Turkey, 23 - 27 July 2018, pp.17
- X. **On Suborbital Graphs and Related Sequences**  
DEĞER A. H., AKBABA Ü., TUYLU T.  
INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS, Trabzon, Turkey, 23 - 27 July 2018, pp.68
- XI. **Relation of Some Special Vertices of Suborbital Graphs and Continued Fractions**  
TUYLU T., DEĞER A. H., AKBABA Ü.  
INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS, Trabzon, Turkey, 23 - 27 July 2018, pp.172
- XII. **On Some Connections Between Suborbital Graphs and Fibonacci- Lucas Matrices**  
AKBABA Ü., DEĞER A. H.  
INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World Mathematicians"  
Minisymposium on Approximation Theory & Minisymposium on Math Education, İstanbul, Turkey, 3 - 06 July 2018, pp.366
- XIII. **On Some Properties of Even Fibonacci and Lucas Numbers with Suborbital Graphs**  
DEĞER A. H., AKBABA Ü.  
INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World Mathematicians"  
Minisymposium on Approximation Theory & Minisymposium on Math Education, İstanbul, Turkey, 3 - 06 July 2018, pp.365
- XIV. **On Some Relations Between Continued Fractions and Fibonacci Numbers**  
TUYLU T., DEĞER A. H., AKBABA Ü.  
International Conference On Mathematics and Mathematics Education (ICMME-2018), Ordu, Turkey, 27 - 29 June 2018, pp.94-95
- XV. **On Some Connections Between Suborbital Graphs and Special Sequences**  
AKBABA Ü., DEĞER A. H., Tuylu T.  
International Conference on Mathematics and Mathematics Education (ICMME 2018), Ordu, Turkey, 27 - 29 June 2018, vol.10, pp.134-143

- XVI. **Finding Characteristic Roots of Matrices of Even Lucas and Fibonacci Numbers**  
AKBABA Ü., DEĞER A. H., TUYLU T.  
International Conference On Mathematics and Mathematics Education (ICMME-2018), Ordu, Turkey, 27 - 29 June 2018, pp.62-63
- XVII. **On Some Special Values of Fibonacci and Lucas Sequences with the Suborbital Graphs**  
DEĞER A. H., AKBABA Ü.  
6TH INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Budapest, Hungary, 15 - 18 August 2017, pp.36
- XVIII. **Some Special Values of Vertices of Trees on the Suborbital Graphs**  
DEĞER A. H., AKBABA Ü.  
6TH INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Budapest, Hungary, 15 - 18 August 2017, pp.35
- XIX. **On Suborbital Graphs and Related Lucas Numbers**  
AKBABA Ü., DEĞER A. H.  
International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 3 - 07 July 2017, pp.191
- XX. **On Suborbital Graphs and Related Fibonacci Numbers**  
AKBABA Ü., DEĞER A. H.  
International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.228
- XXI. **Some Properties of Special Vertices of the Suborbital Graphs**  
DEĞER A. H., AKBABA Ü.  
International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.286
- XXII. **Imprimitive Action with Continued Fractions for the Suborbital Graphs**  
DEĞER A. H., AKBABA Ü.  
International Conference on Recent Advances in Pure and Applied Mathematics, Muğla, Turkey, 19 - 23 May 2016, pp.66
- XXIII. **Fu N Graflarındaki Minimal Uzunluk ve Üretici Cinsleri**  
DEĞER A. H., AKBABA Ü.  
10. Ankara Matematik Günleri, Turkey, 11 - 12 June 2015

## Supported Projects

DEĞER A. H., AKBABA Ü., BERBER T., Project Supported by Higher Education Institutions, Sürekli Kesirlerin Yinelenme Bağıntıları ile Alt Yörüngesel Graflardaki Ağaçların Özel Köşeleri, 2018 - 2022

DEĞER A. H., AKBABA Ü., Project Supported by Higher Education Institutions,  $?_0(N)$  Grubunun Alt Yörüngesel Graflarındaki Minimal Uzunluklu İmprimitif Hareket, 2015 - 2016

## Metrics

Publication: 36

Citation (WoS): 2

Citation (Scopus): 2

H-Index (WoS): 1

H-Index (Scopus): 1