

## Assoc. Prof. AYŞE GÜL KAPLAN

### Personal Information

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### Education Information

Doctorate, Anadolu University, Fen Bilimleri Enstitüsü, Turkey 2010 - 2015

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Turkey 2006 - 2008

Undergraduate, Erciyes University, Turkey 2002 - 2006

### Foreign Languages

English, B1 Intermediate

### Dissertations

Doctorate, Bazı kısmi türevli diferansiyel denklemlerin hareketli en küçük kareler collocation metodu ile sayısal çözümleri, Anadolu University, Fen Bilimleri Enstitüsü, 2015

Postgraduate, Bulanık sayı dizilerinin  $\gamma$ -istatistiksel yakınsaklığı, Erciyes University, Fen Bilimleri Enstitüsü, 2008

### Research Areas

Computer Sciences, Mathematics, Statistics, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Cukurova University, Fen-Edebiyat Fakültesi, 2024 - Continues

Associate Professor, Osmaniye Korkut Ata University, 2023 - 2024

Assistant Professor, Osmaniye Korkut Ata University, 2016 - 2023

Research Assistant PhD, Osmaniye Korkut Ata University, 2015 - 2016

Research Assistant, Anadolu University, 2010 - 2015

Research Assistant, Osmaniye Korkut Ata University, 2009 - 2010

Research Assistant, Yozgat Bozok University, 2007 - 2009

### Courses

Reel Analiz, Undergraduate, 2023 - 2024

Fourier Analizi, Undergraduate, 2022 - 2023

Latex Giriş, Undergraduate, 2021 - 2022  
Diferansiyel Denklemler I, Undergraduate, 2021 - 2022  
Matlaba Giriş, Undergraduate, 2021 - 2022  
Mühendislik Matematiği, Undergraduate, 2021 - 2022  
Matematik II, Undergraduate, 2020 - 2021  
Diferansiyel Denklemler, Undergraduate, 2021 - 2022  
Kompleks Fonksiyonlar Teorisi, Undergraduate, 2021 - 2022  
Diferansiyel Denklemler II, Undergraduate, 2021 - 2022  
Matematik I, Undergraduate, 2020 - 2021  
Bilimsel Araştırma Yöntemleri ve Yayın Etiği, Postgraduate, 2018 - 2019  
İleri Mühendislik Matematiği, Postgraduate, 2018 - 2019  
Sayısal Yöntemler ve Matlab Uygulamaları I, Postgraduate, 2017 - 2018  
Latex ile Bilimsel Metinler Hazırlama, Postgraduate, 2017 - 2018

## Articles Published in Other Journals

- I. **Applications of Laplace Transform Method to the Fractional Linear Integro Differential Equations**  
KAPLAN A. G.  
Journal of Contemporary Applied Mathematics, vol.13, no.1, 2023 (Peer-Reviewed Journal)
- II. **Numerical solution of boundary value problem for the Bagley–Torvik equation using Hermite collocation method**  
KAPLAN A. G., ABLAY M. V.  
ANNALS OF MATHEMATICAL SCIENCES AND APPLICATIONS, vol.8, no.1, pp.157-173, 2023 (ESCI)
- III. **Exact Solution of the Bagley-Torvik Equation Using Laplace Transform Method**  
KAPLAN A. G., ABLAY M. V.  
SOUTHEAST ASIAN BULLETIN OF MATHEMATICS, 2022 (Peer-Reviewed Journal)
- IV. **Global Solar Radiation Estimation with Sum of Sine Model**  
KAPLAN A. G.  
Avrupa Bilim ve Teknoloji Dergisi, 2022 (Peer-Reviewed Journal)
- V. **Determination of Weibull Coefficients for Hatay Region by Polynomial Curve Fitting in Matlab**  
KAPLAN A. G., KAPLAN Y. A.  
Avrupa Bilim ve Teknoloji Dergisi, 2022 (Peer-Reviewed Journal)
- VI. **DEVELOPMENT NEW MODEL FOR FORECASTING SOLAR RADIATION BY USING RATIONAL APPROACH**  
KAPLAN A. G.  
Journal of scientific reports-A (Online), 2022 (Peer-Reviewed Journal)
- VII. **Determination of Angstorm Coefficients with curve fitting method by using Matlab Program**  
KAPLAN A. G., KAPLAN Y. A.  
Advances in Artificial Intelligence Research, 2022 (Peer-Reviewed Journal)
- VIII. **Numerical solutions of the MRLW equation using moving least square collocation method**  
KAPLAN A. G., DERELİ Y.  
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.66, no.2, pp.349-361, 2017 (Peer-Reviewed Journal)
- IX. **EW Denkleminin Radial Basis Fonksiyon Collocation Metodu İle Sayısal Çözümü**  
KAPLAN A. G., DERELİ Y.  
SDU, 2012 (Peer-Reviewed Journal)
- X. **Fourier Serilerinin Mutlak Genelleştirilmiş Nörlund Toplanabilirliği**  
SÖNMEZOĞLU A., KAPLAN A. G.  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, 2010 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Application of Sumudu Transform to Fractional Bagley-Torvik Equation**  
KAPLAN A. G.  
ICENSOS 2022, Konya, Turkey, 20 December 2022
- II. **Determination of Weibull coefficients with the curve fitting method in the matlab program.**  
KAPLAN Y. A., KAPLAN A. G.  
IMSEC 2022, Alanya, Turkey, 24 October 2022
- III. **Global Solar Radiation Estimation Using The Smoothing Spline Algorithm**  
KAPLAN A. G., KAPLAN Y. A.  
ICAENS 2022, Konya, Turkey, 20 July 2022
- IV. **Development of a new model for solar radiation estimation**  
KAPLAN A. G.  
ICEANS 2022, Konya, Turkey, 15 October 2022
- V. **Global Solar Radiation Estimation with Sum of Sine Model**  
KAPLAN A. G.  
ICIAS 2022, Konya, Turkey, 10 September 2022
- VI. **Curve Fitting with Power Function for Solar Radiation Estimation**  
KAPLAN A. G.  
ICIAS 2022, Konya, Turkey, 10 September 2022
- VII. **Determination of Angstorm Coefficients with curve fitting method by using Matlab Program**  
KAPLAN A. G., KAPLAN Y. A.  
Artificial Intelligence and Applied Mathematics 2022 (ICAIAAME 2022), Baku, Azerbaijan, 20 May 2022
- VIII. **Determination of Weibull coefficients for Hatay region by polynomial curve fitting in Matlab**  
KAPLAN A. G., KAPLAN Y. A.  
1st International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 May 2022
- IX. **The compatibility of offshore wind data with the Weibull distribution function with using the moving least squares approximation**  
KAPLAN A. G., KAPLAN Y. A.  
II. International Conference on Mathematics and its Applications in Science and Engineering (ICMASE 2021), Spain, 01 July 2021
- X. **Determination of Weibull Coefficients for Hatay Region by Using The Moving Least Squares Approach.**  
KAPLAN Y. A., KAPLAN A. G.  
The International Conference of Materials and Engineering Technology (TICMET'19), Gaziantep, Turkey, 10 October 2019
- XI. **Laplace transform method for exact solutions of some fractional linear differential equations from different order**  
KAPLAN A. G., Ablay M. V.  
6th ifs and contemporary mathematics conference (IFSCOM2019), Mersin, Turkey, 07 June 2019
- XII. **Numerical Solution of the GRLW Equation Using Moving Least Squares Collocation Method**  
KAPLAN A. G.  
International Turkic World Congress on Science and Engineering (UTUFEM 2019), Niğde, Turkey, 17 June 2019
- XIII. **The developing of the new models in solar radiation estimation by moving least squares method**  
KAPLAN Y. A., KAPLAN A. G.  
the 8th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2019), İstanbul, Turkey, 10 - 13 March 2019
- XIV. **The performance analysis of the moving least squares method to find the Weibull parameters at different height**  
KAPLAN A. G., KAPLAN Y. A.  
8th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2019), İstanbul, Turkey,

10 March 2019

- XV. **NUMERICAL SOLUTION FOR THE FRACTIONAL ORDER LINEAR DIFFERENTIAL EQUATIONS USING HERMITE COLLOCATION METHOD**  
KAPLAN A. G., Ablay M. V.  
IFSCOM 2018, 5 - 09 September 2018
- XVI. **NLS Denkleminin Hareketli En Küçük Kareler Kollokasyon Metodu ile Sayısal Çözümü**  
KAPLAN A. G., DERELİ Y.  
Türk Matematik Derneği 28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015
- XVII. **Numerical Solutions of the Fisher s Equation Using MLS Collocation Method**  
KAPLAN A. G., DERELİ Y.  
3rd International Euroasian Conference on Mathematical Sciences and Applications, VIYANA, Austria, 25 - 28 August 2014
- XVIII. **Numerical solutions of the GEW wave equation using MLS collocation method**  
KAPLAN A. G., DERELİ Y.  
8th International Conference CURVES and SURFACES, Paris, France, 12 - 18 June 2014
- XIX. **EW Denkleminin Radial Basis Fonksiyon Collocation Metodu İle Sayısal Çözümü**  
KAPLAN A. G., DERELİ Y.  
Türk Matematik Derneği XXIV. Ulusal Matematik Sempozyumu, Bursa, Turkey, 7 - 10 September 2011

## **Metrics**

Publication: 29

## **Scholarships**

Yurt İçi Doktora Bursu, TUBITAK, 2010 - 2015

Yurt İçi Yüksek Lisans Bursu, TUBITAK, 2006 - 2008