

Assoc. Prof. AYŞE GÜL KAPLAN

Personal Information

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International Researcher IDs

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Yoksis Researcher ID: 57507

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 ?-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

Postgraduate

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

Undergraduate

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

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A new approach for predicting solar radiation based on a pattern search algorithm**
Kaplan Y. A., Tolun G. G., KAPLAN A. G.
Theoretical and Applied Climatology, vol.156, no.1, 2025 (SCI-Expanded)
- II. **The New Solar Radiation Estimation Models Using Different Weight Functions in the Moving Least Squares Approach**
Kaplan A. G.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES INDIA SECTION A - PHYSICAL SCIENCES, vol.94, no.1, pp.309-315, 2024 (SCI-Expanded)
- III. **A new approach for estimating solar radiation using Gaussian distribution and developing new model**
Kaplan A. G.
THEORETICAL AND APPLIED CLIMATOLOGY, vol.155, no.1, pp.1007-1017, 2024 (SCI-Expanded)
- IV. **A new approach based on moving least square method for calculating the Weibull coefficients**
Kaplan A. G.
ENVIRONMENTAL PROGRESS AND SUSTAINABLE ENERGY, vol.41, no.e13934, pp.1-9, 2022 (SCI-Expanded)
- V. **Using of the Weibull distribution in developing global solar radiation forecasting models**
Kaplan A. G.
ENVIRONMENTAL PROGRESS AND SUSTAINABLE ENERGY, vol.43, no.e14380, pp.1-11, 2022 (SCI-Expanded)
- VI. **Developing of the new models in solar radiation estimation with curve fitting based on moving least-squares approximation**
Kaplan A. G.
RENEWABLE ENERGY, vol.146, no.2020, pp.2462-2471, 2020 (SCI-Expanded)
- VII. **Numerical solutions of the GEW equation using MLS collocation method**
Kaplan A. G.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.28, no.1, pp.1-8, 2017 (SCI-Expanded)
- VIII. **A meshless method and stability analysis for the nonlinear Schrödinger equation**
Kaplan A. G.
WAVES IN RANDOM AND COMPLEX MEDIA, vol.27, no.4, pp.602-614, 2017 (SCI-Expanded)
- IX. **Numerical Solutions of the Symmetric Regularized Long Wave Equation Using Radial Basis Functions**
Kaplan A. G.

Articles Published in Other Journals

- I. **Hermite collocation method for approximate solutions of fractional linear differential equations from order 0 α 1**
KAPLAN A. G., ABLAY M. V.
Applied Mathematics and Computer Science, 2024 (Peer-Reviewed Journal)
- II. **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)
- III. **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)
- IV. **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)
- V. **Global Solar Radiation Estimation with Sum of Sine Model**
KAPLAN A. G.
Avrupa Bilim ve Teknoloji Dergisi, 2022 (Peer-Reviewed Journal)
- VI. **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)
- VII. **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)
- VIII. **DEVELOPMENT NEW MODEL FOR FORECASTING SOLAR RADIATION BY USING RATIONAL APPROACH**
KAPLAN A. G.
Journal of scientific reports-A (Online), 2022 (Peer-Reviewed Journal)
- IX. **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)
- X. **EW Denkleminin Radial Basis Fonksiyon Collocation Metodu İle Sayısal Çözümü**
KAPLAN A. G., DERELİ Y.
SDU, 2012 (Peer-Reviewed Journal)
- XI. **Fourier Serilerinin Mutlak Genelleştirilmiş Nörlund Toplanabilirliği**
SÖNMEZOĞLU A., KAPLAN A. G.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, 2010 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- 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 Angstrom 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, VİYANA, 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: 39

Scholarships

Yurt İçi Doktora Bursu, TUBİTAK, 2010 - 2015

Yurt İçi Yüksek Lisans Bursu, TUBİTAK, 2006 - 2008