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Personal Information

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International Researcher IDs

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Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Matematik/Uygulamalı Matematik, Turkey 2010 - 2016

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Matematik/Uygulamalı Matematik, Turkey 2007 - 2010

Undergraduate, Karadeniz Technical University, Fen Edebiyat Fakültesi, Matematik, Turkey 2003 - 2007

Dissertations

Doctorate, Ağsız Eleman Bağımsız Galerkin Yönteminin Optimizasyonu ve Adaptif Algoritmalarla Uygulamaları, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2016

Postgraduate, Futbol Topu Yörünge Modeli ve Analizi, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2010

Research Areas

Mathematics, Differential Equations, Numerical Analysis

Academic Titles / Tasks

Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2021 - Continues

Research Assistant PhD, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2016 - 2021

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Matematik, 2009 - 2016

Courses

Matlab ile Sembolik Analiz, Undergraduate, 2023 - 2024

Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Diferansiyel Denklemler için Sayısal Çözüm Yöntemleri, Postgraduate, 2023 - 2024

Sayısal Analiz Yöntemleri, Undergraduate, 2022 - 2023, 2021 - 2022

Undergraduate, 2022 - 2023, 2021 - 2022

Lineer Cebir, Undergraduate, 2021 - 2022

Matematik, Associate Degree, 2021 - 2022

Undergraduate, 2021 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Approximate Solutions of Fractional Differential Equations Using Optimal q-Homotopy Analysis Method: A Case Study of Abel Differential Equations**
Sengül S., Bekiryazici Z., Merdan M.
FRACTAL AND FRACTIONAL, vol.8, no.9, pp.533, 2024 (SCI-Expanded)
- II. **Growth modelling based on different feeding protocols of turbot (*Psetta maxima*)**
ŞENGÜL S., YAZIR D., ATASARAL Ş., Kocabas M.
AQUACULTURE RESEARCH, vol.53, no.15, pp.5184-5194, 2022 (SCI-Expanded)
- III. **WONG-ZAKAI METHOD FOR STOCHASTIC DIFFERENTIAL EQUATIONS IN ENGINEERING**
Şengül S., Bekiryazıcı Z., Merdan M.
THERMAL SCIENCE, vol.25, 2021 (SCI-Expanded)
- IV. **Approximate Solutions to the Nonlinear Klein-Gordon Equation in de Sitter Spacetime**
YAZICI M., Sengul S.
OPEN PHYSICS, vol.14, no.1, pp.314-320, 2016 (SCI-Expanded)

Articles Published in Other Journals

- I. **Wong-Zakai approximation for stochastic models of smoking**
Şengül S., Bekiryazıcı Z., Merdan M.
Sigma Journal of Engineering and Natural Sciences, vol.41, no.5, pp.958-968, 2023 (ESCI)
- II. **THE PERFORMANCE OF WONG-ZAKAI APPROXIMATIONS FOR THE INVESTIGATION OF STOCHASTIC DIFFERENTIAL EQUATION MODELS WITH NONLINEAR MULTIPLICATIVE NOISE**
Şengül S., Bekiryazıcı Z., Merdan M.
ACTA MATHEMATICA UNIVERSITATIS COMENIANAE, vol.90, no.2, pp.231-243, 2021 (ESCI)
- III. **Wong-Zakai Method Applications for Explicitly Solvable Stochastic Differential Equations**
ŞENGÜL S., MERDAN M.
Journal of Advances in Mathematics and Computer Science, vol.Issue 1-2, no.34, pp.1-12, 2019 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Maxima Ortamında Simpleks Algoritması ve Bir Uygulaması**
Şengül S., Erdem Tosun F.
36. ULUSAL MATEMATİK SEMPOZYUMU, Amasya, Turkey, 9 - 12 September 2024, pp.36
- II. **Investigation of Fractional Order Genesio-Tesi System Using Laplace Transformation**
Bekiryazıcı Z., Şengül S., Merdan M.
8th International IFS and Contemporary Mathematics Conference, Mersin, Turkey, 16 - 19 June 2022, pp.18-19
- III. **Eleman Bağımsız Galerkin Ve Difüze Eleman Yöntemlerinin Destek Bölge Yarıçap Değişime Göre Hata Analizi**
ŞENGÜL S., COŞKUN E.
32. ULUSAL MATEMATİK SEMPOZYUMU, Samsun, Turkey, 31 August - 03 September 2019
- IV. **GUI-EFG: Guided Element Free Galerkin Method**
ŞENGÜL S., COŞKUN E.
5th INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS, 23 - 27 July

2018

- V. **An h-Adaptive Approach for Element Free Galerkin Method with Applications for Inner or Boundary Layer Problems**
Şengül S., Coşkun E.
International Conference on Mathematics and Mathematics Education(ICMME-2017), Şanlıurfa, Turkey, 11 - 13 May 2017
- VI. **On the Pointwise Decay Estimate for the Klein Gordon Equation with Variable Coefficient**
YAZICI M., ŞENGÜL S.
Xth International Statistics Days Conference(ISDC-2016), Giresun, Turkey, 7 - 09 October 2016
- VII. **A comparison of the methods for the Nonlinear Klein Gordon Equations in de Sitter Spacetime**
YAZICI M., ŞENGÜL S.
2nd International Conference on Pure & Applied Science(ICPAS-2016), İstanbul, Turkey, 1 - 05 June 2016
- VIII. **On the Properties of Shape Functions of Moving Least Square Method for Two Dimensional Problems**
ŞENGÜL S., COŞKUN E.
International Conference on Mathematics and Mathematics Education (ICMME-2016), Elazığ, Turkey, 12 - 14 May 2016
- IX. **A Adaptive Approach for Element Free Galerkin Method and Applications**
ŞENGÜL S., COŞKUN E.
ICRAPAM 2015, İstanbul, Turkey, 3 - 06 June 2015
- X. **AĞSIZ HAREKETLİ EN KÜÇÜK KARELER YÖNTEMİNİN OPTİMİZASYONU VE ENDÜSTRİYEL PROBLEMLER ÜZERİNDE UYGULAMALARI**
ŞENGÜL S., COŞKUN E.
14.MATEMATİK SEMPOZYUMU, Niğde, Turkey, 14 - 16 May 2015
- XI. **Futbol Topunun Yörünge Modeli ve Analizi**
ŞENGÜL S., COŞKUN E.
9.MATEMATİK SEMPOZYUMU SERGİ VE ŞENLİKLERİ, Trabzon, Turkey, 20 - 22 October 2010

Scientific Refereeing

CUMHURİYET SCIENCE JOURNAL, National Scientific Refreed Journal, September 2022
Sigma Journal of Engineering and Natural Sciences, Journal Indexed in ESCI, November 2021
TURKISH JOURNAL OF ENGINEERING, National Scientific Refreed Journal, October 2021
İĞDIR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, National Scientific Refreed Journal, May 2020
İĞDIR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, National Scientific Refreed Journal, August 2019
İĞDIR ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, National Scientific Refreed Journal, June 2019
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, Journal Indexed in SCI-E, May 2019
New Trends In Mathematical Sciences, Other Indexed Journal, December 2017
New Trends In Mathematical Sciences, Other Indexed Journal, December 2017
New Trends in Mathematical Sciences, Other Indexed Journal, December 2017

Metrics

Publication: 18
Citation (WoS): 9
Citation (Scopus): 11
H-Index (WoS): 2
H-Index (Scopus): 2

Congress and Symposium Activities

- Sengul, S., Coskun, E., "Eleman Bağımsız Galerkin ve Difüze Eleman Yöntemlerinin Destek Bölge Yarıçap Değişimine Göre Hata Analizi", 32. Ulusal Matematik Sempozyumu, Attendee, Samsun, Turkey, 2019
- Sengul, S., Coskun, E., "GUI-EFG: Guided Element Free Galerkin Method", ICRAPAM2018, Attendee, Trabzon, Turkey, 2018
- Sengul, S., Coskun, E., "An h-Adaptive Approach for Element Free Galerkin Method with Applications for Inner or Boundary Layer Problems", ICMME-2017, Attendee, Şanlıurfa, Turkey, 2017
- Sengul, S., Coskun, E., "On the Properties of Shape Functions of Moving Least Square Method for Two Dimensional Problems", ICMME-2016, Attendee, Elazığ, Turkey, 2016
- Sengul, S., Coskun, E., "A Adaptive Approach for Element Free Galerkin Method and Applications", ICRAPAM2015, Attendee, İstanbul, Turkey, 2015
- Sengul, S., Coskun, E., "Ağırsız Hareketli En Küçük Kareler Yönteminin Optimizasyonu ve Uygulamaları", 14. Matematik Sempozyumu, Attendee, Niğde, Turkey, 2015
- Sengul, S., Coskun, E., "Futbol Topunun Yörünge Modeli ve Analizi", 9. Matematik Sempozyumu, Attendee, Trabzon, Turkey, 2010