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Publons / Web Of Science ResearcherID: AAH-1145-2020

ScopusID: 57053059300

Yoksis Researcher ID: 184852

Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), Turkey
2010 - 2016

Undergraduate, Anadolu University, Faculty Of Business Administration, Department Of Business, Turkey 2008 - 2010

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik (YI) (Tezli), Turkey 2007 - 2009

Associate Degree, Anadolu University, Open Education Faculty, Department Of Finance, Banking And Insurance, Turkey
2005 - 2008

Undergraduate, Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 2003 - 2007

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Zamana bağlı kısmi diferensiyel denklemlerin üstel B-spline Galerkin sonlu elemanlar yöntemiyle sayısal çözümleri, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), 2016

Postgraduate, Polinom ve polinom olmayan spline fonksiyonlar yardımıyla bazı kısmi diferensiyel denklemlerin sayısal çözümleri, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik (YI) (Tezli), 2009

Research Areas

Differential Equations, Numerical Analysis

Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ,
2024 - Continues

Lecturer PhD, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2011
- 2024

Courses

Genel Matematik, Undergraduate, 2017 - 2018
Nümerik Analiz, Undergraduate, 2017 - 2018, 2016 - 2017
Mühendislik Matematiği, Undergraduate, 2017 - 2018, 2016 - 2017
Matematik II, Undergraduate, 2017 - 2018, 2016 - 2017
Matematik, Undergraduate, 2017 - 2018, 2016 - 2017
Analiz II, Undergraduate, 2017 - 2018
Diferensiyel Denklemler, Undergraduate, 2017 - 2018
Genel Matematik II, Undergraduate, 2017 - 2018
Diferensiyel Denklemler II, Undergraduate, 2016 - 2017
Matematik I, Undergraduate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **High order accurate method for the numerical solution of the second order linear hyperbolic telegraph equation**
Kirli E., IRK D., ZORŞAHİN GÖRGÜLÜ M.
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.39, no.3, pp.2060-2072, 2023 (SCI-Expanded)
- II. **A High Order Accurate Numerical Solution of the Klein-Gordon Equation**
IRK D., Kirli E., ZORŞAHİN GÖRGÜLÜ M.
Applied Mathematics and Information Sciences, vol.16, no.2, pp.331-339, 2022 (SCI-Expanded)
- III. **Nonic B-spline algorithms for numerical solution of the Kawahara equation**
ZORŞAHİN GÖRGÜLÜ M.
Turkish Journal of Mathematics, vol.46, no.7, pp.2890-2901, 2022 (SCI-Expanded)
- IV. **GALERKIN METHODS FOR THE NUMERICAL SOLUTION OF THE SCHRÖDINGER EQUATION BY USING TRIGONOMETRIC B-SPLINES**
Mersin M., IRK D., ZORŞAHİN GÖRGÜLÜ M.
Miskolc Mathematical Notes, vol.23, no.1, pp.363-380, 2022 (SCI-Expanded)
- V. **Quartic trigonometric B-spline algorithm for numerical solution of the regularized long wave equation**
IRK D., Keskin Yildiz P., ZORŞAHİN GÖRGÜLÜ M.
TURKISH JOURNAL OF MATHEMATICS, vol.43, no.1, pp.112-125, 2019 (SCI-Expanded)
- VI. **Exponential B-splines Galerkin Method for the Numerical Solution of the Fisher's Equation**
ZORŞAHİN GÖRGÜLÜ M., Dag İ.
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.42, pp.2189-2198, 2018 (SCI-Expanded)
- VII. **Simulations of solitary waves of RLW equation by exponential B-spline Galerkin method**
ZORŞAHİN GÖRGÜLÜ M., Dag İ., IRK D.
CHINESE PHYSICS B, vol.26, no.8, 2017 (SCI-Expanded)
- VIII. **Trigonometric quadratic B-spline subdomain Galerkin algorithm for the Burgers' equation**
Ay B., Dag İ., ZORŞAHİN GÖRGÜLÜ M.
OPEN PHYSICS, vol.13, no.1, pp.400-406, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **An Efficient High Order Algorithm for Solving Regularized Long Wave Equation**
IRK D., ZORŞAHİN GÖRGÜLÜ M.

- MOBILE, UBIQUITOUS, AND PERVASIVE LEARNING: FUNDAMENTS, APPLICATIONS, AND TRENDS, no.1111, pp.148-155, 2020 (Scopus)
- II. **A High-Order Accurate Numerical Algorithm for the Numerical Solution of Burgers' Equation**
ZORŞAHİN GÖRGÜLÜ M.
Muş Alparslan Üniversitesi Fen Bilimleri Dergisi, vol.7, no.2, pp.653-656, 2019 (Peer-Reviewed Journal)
- III. **Numerical solution of modified regularized long wave equation by using cubic trigonometric B-spline functions**
ZORŞAHİN GÖRGÜLÜ M., İRK D.
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, no.1, pp.126-138, 2019 (Peer-Reviewed Journal)
- IV. **THE GALERKIN FINITE ELEMENT METHOD FOR ADVECTION DIFFUSION EQUATION**
ZORŞAHİN GÖRGÜLÜ M., İRK D.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BİLİMLERİ DERGISI, vol.37, no.1, pp.119-128, 2019 (ESCI)
- V. **Higher Order Accurate Numerical Solution of Advection Diffusion Equation**
ZORŞAHİN GÖRGÜLÜ M., İRK D.
Konuralp Journal of Mathematics, vol.6, no.2, pp.253-258, 2018 (Peer-Reviewed Journal)
- VI. **Galerkin method for the numerical solution of the advection-diffusion equation by using exponential B-splines**
ZORŞAHİN GÖRGÜLÜ M., DAĞ İ.
International Journal of Mathematical Modelling Computations, vol.8, no.3, pp.2-3, 2018 (Peer-Reviewed Journal)
- VII. **A NUMERICAL SOLUTION OF THE ADVECTION-DIFFUSION EQUATION BY USING EXTENDED CUBIC B-SPLINE FUNCTIONS**
ZORŞAHİN GÖRGÜLÜ M., DAĞ İ., DOĞAN S., İRK D.
ANADOLU UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY A - Applied Sciences and Engineering, vol.19, no.2, pp.347-355, 2018 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Diferensiyel Denklemler**
İRK D., ZORŞAHİN GÖRGÜLÜ M.
Eskişehir Osmangazi Üniversitesi Yayınları, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **A High Accuracy Numerical Solution of the Equal Width Wave Equation**
ZORŞAHİN GÖRGÜLÜ M., İRK D.
6th Int. IFS and Contemporary Mathematics Conference (IFSCOM2019), 7 - 10 June 2019
- II. **The numerical solution of second order linear hyperbolic telegraph equation**
ZORŞAHİN GÖRGÜLÜ M., İRK D., KIRLI E.
Recent Advances in Mathematical and Engineering Sciences (International Mathematics Engineering Conference RAIMS-LVIV), 24 - 26 July 2019
- III. **A high-order accurate numerical algorithm for the numerical solution of Burgers' equation**
ZORŞAHİN GÖRGÜLÜ M.
Recent Advances in Mathematical and Engineering Sciences (International Mathematics Engineering Conference RAIMS-LVIV), 24 - 26 July 2019
- IV. **AN EFFICIENT HIGH ORDER ALGORITHM FOR SOLVING REGULARIZED LONG WAVE EQUATION**
İRK D., ZORŞAHİN GÖRGÜLÜ M.
The Fourth International Conference on Computational Mathematics and Engineering Sciences (CMES-2019), 20 - 22 April 2019

- V. **A Numerical Method for Solution of Gilson-Pickering Equation**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 INTERNATIONAL CONFERENCE ON MATHEMATICS“An Istanbul Meeting for World
 Mathematicians”Minisymposium on Approximation Theory Minisymposium on Math Education, 3 - 06 July 2018
- VI. **High Order Single Step Methods for Advection-Diffusion Equation**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 INTERNATIONAL CONFERENCE ON MATHEMATICS“An Istanbul Meeting for World
 Mathematicians”Minisymposium on Approximation Theory Minisymposium on Math Education, 3 - 06 July 2018
- VII. **A High Accuracy Numerical Method for Solution of the RLW Equation**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), 11 - 13 May
 2018
- VIII. **Numerical Solution of Modified Regularized Long Wave Equation by Using Cubic Trigonometric B-
 spline Functions**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 International Advanced Researches Engineering Congress-2017, 16 - 18 November 2017
- IX. **A Comparison of the Numerical Solutions for Advection-Diffusion Equation**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 International Advanced Researches Engineering Congress-2017, 16 - 18 November 2017
- X. **A Numerical Solution of the Advection-Diffusion Equation by Using Extended Cubic B-Spline
 Functions**
 ZORŞAHİN GÖRGÜLÜ M., DAĞ İ.
 International Conference on Mathematics and Mathematics Education(ICMME-2017), 11 - 13 May 2017
- XI. **A Numerical Solution of the Kuramoto-Sivashinsky Equation by Collocation Method using Quintic
 Trigonometric B-spline**
 SAKA B., ZORŞAHİN GÖRGÜLÜ M., DAĞ İ.
 International Conference on Mathematics and Mathematics Education(ICMME-2017), 11 - 13 May 2017
- XII. **Exponential B splines Galerkin Method for the Numerical Solution of the Fisher s Equation**
 ZORŞAHİN GÖRGÜLÜ M., DAĞ İ.
 International Congress on Fundamental and Applied Sciences 2016 (ICFAS2016), 22 - 26 August 2016
- XIII. **The Galerkin finite element method for advection diffusion equation**
 ZORŞAHİN GÖRGÜLÜ M., IRK D.
 International Congress on Fundamental and Applied Sciences, İstanbul, Turkey, 22 - 26 August 2016
- XIV. **Wave propogation by way of exponential B spline Galerkin method**
 ZORŞAHİN GÖRGÜLÜ M., DAĞ İ., IRK D.
 International conference on quantum science and application(ICQSA-2016), 25 - 27 May 2016
- XV. **A Quartic Trigonometric B spline Collocation Method for Solving the Nonlinear Schrödinger
 Equation**
 SAKA B., ZORŞAHİN GÖRGÜLÜ M.
 International Conference on Mathematics and Mathematics Education (ICMME-2016), Turkey, 12 - 14 May 2016
- XVI. **A Trigonometric B spline Finite Element Method for Equal Width Equation**
 SAKA B., ZORŞAHİN GÖRGÜLÜ M.
 International Conference on Mathematics and Mathematics Education (ICMME-2016), Turkey, 12 - 14 May 2016
- XVII. **Galerkin method for the numerical solution of the advection diffusion equation by using exponential
 B splines**
 ZORŞAHİN GÖRGÜLÜ M., DAĞ İ.
 International Conference on Natural Science and Engineering (ICNASE'16), 19 - 20 March 2016
- XVIII. **Wave Propagation by Way of Exponential B-Spline Galerkin Method**
 ZORŞAHİN GÖRGÜLÜ M., Dag İ., Irk D.
 International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Turkey, 25 - 27 May 2016,

- XIX. **Trigonometric quadratic B spline subdomain Galerkin algorithm for the Burgers equation**
AY B., DAĞ İ., ZORŞAHİN GÖRGÜLÜ M.
International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2015), 8 - 12 June 2015
- XX. **Galerkin method for the numerical solution of the rlw equation by using exponential B splines**
ZORŞAHİN GÖRGÜLÜ M., DAĞ İ., IRK D.
20th international conference on mathematical modelling and analysis, sigulda , latviya, SİGULDA, 26 - 29 May 2015
- XXI. **Numerical solutions of the Burgers equation using trigonometric B spline galerkin method**
ZORŞAHİN GÖRGÜLÜ M., DAĞ İ., IRK D.
20th International Conference on Mathematical Modelling and Analysis, Sigulda, Latvia, 26 - 29 May 2015
- XXII. **Numerical Solutions of the RLW Equation Using Trigonometric Quadratic B splines Subdomain Galerkin method**
SAKA B., ZORŞAHİN GÖRGÜLÜ M.
14. Matematik Sempozyumu, Turkey, 14 - 16 May 2015
- XXIII. **KdVB Denkleminin Kübik B Spline Galerkin Yöntemiyle Nümerik Çözümü**
SAKA B., ZORŞAHİN GÖRGÜLÜ M.
14. Matematik Sempozyumu, Turkey, 14 - 16 May 2015
- XXIV. **A Cubic B spline Algorithm for Numerical Solution of the KdVB equation**
SAKA B., ZORŞAHİN GÖRGÜLÜ M.
14. Matematik Sempozyumu, Turkey, 14 - 16 May 2015

Supported Projects

Zorşahin Görgülü M., Irk D., Project Supported by Higher Education Institutions, Zamana Göre İkinci Mertebeden Bazı Kısmi Diferansiyel Denklemlerin Yüksek Doğruluklu Sayısal Çözümleri, 2018 - 2022
Dağ İ., Irk D., TUBITAK Project, Üstel B Spline Sonlu Elemanlar Metodu ile Zamana Bağlı Diferansiyel Denklemlerin Yaklaşık Çözümlerinin Bulunması, 2014 - 2016

Metrics

Publication: 40
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Citation (Scopus): 45
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H-Index (Scopus): 4