

## Assoc. Prof. ÖZLEM ERSOY HEPSON

### Personal Information

**Email:** ozersoy@ogu.edu.tr

**Web:** <https://avesis.ogu.edu.tr/ozersoy>

### International Researcher IDs

ORCID: 0000-0002-5369-8233

Publons / Web Of Science ResearcherID: P-8635-2015

ScopusID: 57150467300

Yoksis Researcher ID: 171364

### Education

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), Turkey  
2012 - 2015

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (YI) (Tezli),  
Turkey 2009 - 2012

Undergraduate, Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 2006 - 2009

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Bazı kısmi diferansiyel denklem sistemlerinin üstel kübik B-spline kolokeysın çözümlerinin üretilmesi,  
Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), 2015

Postgraduate, Singularly perturbed diferansiyel denkleminin geometrik olarak değişen sonlu elemanlarda B-spline  
fonksiyonları yardımıyla çözümü, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar  
Bilimleri (YI) (Tezli), 2012

### Research Areas

Mathematics

### Academic Positions

Associate Professor, Eskisehir Osmangazi University, Fen Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, 2023 -  
Continues

Associate Professor, Eskisehir Osmangazi University, Fen Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, 2021 -  
2023

Research Assistant PhD, Eskisehir Osmangazi University, Fen Fakültesi, Matematik Ve Bilgisayar Bilimleri Bölümü, 2009 -  
2021

## Courses

### Undergraduate

Analiz, Undergraduate, 2021 - 2022  
Nümerik Analiz, Undergraduate, 2021 - 2022  
Genel Matematik I, Undergraduate, 2021 - 2022  
Genel Matematik I, Undergraduate, 2021 - 2022  
Diferensiyel Denklemler, Undergraduate, 2016 - 2017  
Fark Denklemleri II, Undergraduate, 2016 - 2017  
Nümerik Analiz II, Undergraduate, 2016 - 2017  
Fark Denklemleri II, Undergraduate, 2016 - 2017  
Matematik I, Undergraduate, 2016 - 2017

## Journal articles indexed in SCI, SSCI, and AHCI

- I. **A computational method for nonlinear Burgers' equation using quartic-trigonometric tension B-splines**  
Yigit G., ERSOY HEPSON Ö., Allahviranloo T.  
Mathematical Sciences, vol.18, no.1, pp.17-28, 2024 (SCI-Expanded)
- II. **High Order Predictor–Corrector Cubic B-Spline Collocation Method for Modeling Solitary Waves**  
SAKA B., ERSOY HEPSON Ö., DAĞ İ.  
Proceedings of the National Academy of Sciences India Section A - Physical Sciences, vol.94, no.1, pp.83-98, 2024 (SCI-Expanded)
- III. **Modeling of solitary waves via higher-order predictor-corrector scheme**  
SAKA B., ERSOY HEPSON Ö., DAĞ İ.  
Journal of Taibah University for Science, vol.18, no.1, 2024 (SCI-Expanded)
- IV. **Integration of the RLW equation using higher-order predictor–corrector scheme and quintic B-spline collocation method**  
SAKA B., DAĞ İ., ERSOY HEPSON Ö.  
Mathematical Sciences, vol.17, no.4, pp.491-502, 2023 (SCI-Expanded)
- V. **A numerical scheme for the wave simulations of the Kuramoto–Sivashinsky model via quartic-trigonometric tension B-spline**  
ERSOY HEPSON Ö., Yigit G.  
Wave Motion, vol.114, 2022 (SCI-Expanded)
- VI. **A quartic trigonometric tension B-spline finite element method for solving Gardner equation**  
ERSOY HEPSON Ö.  
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.38, no.4, pp.1055-1067, 2022 (SCI-Expanded)
- VII. **A higher-order efficient approach to numerical simulations of the RLW equation**  
DAĞ İ., ERSOY HEPSON Ö., SAKA B.  
Pramana - Journal of Physics, vol.96, no.1, 2022 (SCI-Expanded)
- VIII. **The cubic B-spline least-squares finite-element method for the numerical solutions of regularized long-wave equation**  
Hepson Ö., Dağ İ., Saka B., Ay B.  
International Journal of Computer Mathematics, vol.99, no.5, pp.993-1004, 2022 (SCI-Expanded)
- IX. **Solitary waves of the RLW equation via least squares method**  
Ersoy Hepson Ö., Dağ İ., Saka B., Ay B.  
International Journal Of Nonlinear Sciences And Numerical Simulation, vol.0, 2021 (SCI-Expanded)
- X. **Quartic-trigonometric tension B-spline Galerkin method for the solution of the advection-diffusion equation**

Ersoy Hepson Ö., Yigit G.

Computational and Applied Mathematics, vol.40, no.4, 2021 (SCI-Expanded)

- XI. **Numerical simulations of reaction-diffusion systems in biological and chemical mechanisms with quartic-trigonometric B-splines**  
Ersoy Hepson Ö., Yigit G., Allahviranloo T.  
Computational and Applied Mathematics, vol.40, no.4, 2021 (SCI-Expanded)
- XII. **Numerical simulations of Kuramoto-Sivashinsky equation in reaction-diffusion via Galerkin method**  
Ersoy Hepson Ö.  
MATHEMATICAL SCIENCES, vol.15, no.2, pp.199-206, 2021 (SCI-Expanded)
- XIII. **Numerical investigation of the solutions of Schrödinger equation with exponential cubic B-spline finite element method**  
ERSOY HEPSON Ö., DAĞ İ.  
International Journal of Nonlinear Sciences and Numerical Simulation, vol.22, pp.119-133, 2021 (SCI-Expanded)
- XIV. **Hyperbolic-trigonometric tension B-spline Galerkin approach for the solution of Fisher equation**  
Dağ İ., Ersoy Hepson Ö.  
FOURTH INTERNATIONAL CONFERENCE OF MATHEMATICAL SCIENCES (ICMS 2020), vol.2334, pp.1-6, 2021 (SCI-Expanded)
- XV. **Hyperbolic-trigonometric tension B-spline Galerkin approach for the solution of RLW equation**  
Dağ İ., Ersoy Hepson Ö.  
FOURTH INTERNATIONAL CONFERENCE OF MATHEMATICAL SCIENCES (ICMS 2020), vol.2334, 2021 (SCI-Expanded)
- XVI. **Exponential B-spline collocation solutions to the Gardner equation**  
ERSOY HEPSON Ö., KORKMAZ A., Dağ İ.  
INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.97, no.4, pp.837-850, 2020 (SCI-Expanded)
- XVII. **A quartic trigonometric tension b-spline algorithm for nonlinear partial differential equation system**  
Ersoy Hepson Ö.  
Engineering Computations (Swansea, Wales), vol.38, no.5, pp.2293-2311, 2020 (SCI-Expanded)
- XVIII. **Sine-Gordon expansion method for exact solutions to conformable time fractional equations in RLW-classac**  
Korkmaz A., Ersoy Hepson Ö., Hosseini K., Rezazadeh H., Eslami M.  
JOURNAL OF KING SAUD UNIVERSITY SCIENCE, vol.32, pp.567-574, 2020 (SCI-Expanded)
- XIX. **Exponential Twice Continuously Differentiable B-Spline Algorithm for Burgers' Equation**  
ERSOY HEPSON Ö., Dağ İ., ADAR N.  
UKRAINIAN MATHEMATICAL JOURNAL, vol.70, no.6, pp.906-921, 2018 (SCI-Expanded)
- XX. **Numerical solutions of the Gardner equation by extended form of the cubic B-splines**  
ERSOY HEPSON Ö., KORKMAZ A., Dağ İ.  
PRAMANA-JOURNAL OF PHYSICS, vol.91, no.4, 2018 (SCI-Expanded)
- XXI. **Traveling waves in rational expressions of exponential functions to the conformable time fractional Jimbo-Miwa and Zakharov-Kuznetsov equations**  
KORKMAZ A., ERSOY HEPSON Ö.  
OPTICAL AND QUANTUM ELECTRONICS, vol.50, no.1, 2018 (SCI-Expanded)
- XXII. **Motion of Patterns Modeled by the Gray-Scott Autocatalysis System in One Dimension**  
KORKMAZ A., ERSOY HEPSON Ö., DAĞ İ.  
MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY, vol.77, no.2, pp.507-526, 2017 (SCI-Expanded)
- XXIII. **Exponential B-Splines for Numerical Solutions to Some Boussinesq Systems for Water Waves**  
ERSOY HEPSON Ö., KORKMAZ A., DAĞ İ.  
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.13, no.6, pp.4975-4994, 2016 (SCI-Expanded)
- XXIV. **The exponential cubic B-spline algorithm for Fisher equation**  
DAĞ İ., ERSOY HEPSON Ö.  
CHAOS SOLITONS & FRACTALS, vol.86, pp.101-106, 2016 (SCI-Expanded)

- XXV. **The Exponential Cubic B-Spline Collocation Method for the Kuramoto-Sivashinsky Equation**  
 ERSOY HEPSON Ö., DAĞ İ.  
 FILOMAT, vol.30, no.3, pp.853-861, 2016 (SCI-Expanded)
- XXVI. **Numerical solutions of the reaction diffusion system by using exponential cubic B-spline collocation algorithms**  
 ERSOY HEPSON Ö., Dağ İ.  
 OPEN PHYSICS, vol.13, no.1, pp.414-427, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **An expansion based on Sine-Gordon equation to Solve KdV and modified KdV equations in conformable fractional forms**  
 ERSOY HEPSON Ö., KORKMAZ A., HOSSEINI K., REZAZADEH H., ESLAMI M.  
 Boletim da Sociedade Paranaense de Matemática, vol.40, 2022 (ESCI)
- II. **An Exponential Cubic B-spline Algorithm for Solving the Nonlinear Coupled Burgers' Equation**  
 Ersoy Hepson Ö., Dağ İ.  
 Computational Methods for Differential Equations, vol.9, no.4, pp.1109-1127, 2021 (ESCI)
- III. **EXTENDED B-SPLINE COLLOCATION METHOD FOR KDV-BURGERS EQUATION**  
 Hepson Ö., Korkmaz A., Dağ İ.  
 TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.9, no.2, pp.267-278, 2019 (ESCI)
- IV. **ON THE NUMERICAL SOLUTION OF THE KLEIN-GORDON EQUATION BY EXPONENTIAL CUBIC B-SPLINE COLLOCATION METHOD**  
 Ersoy Hepson Ö., Korkmaz A., Dağ İ.  
 COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.68, no.1, pp.412-421, 2019 (ESCI)
- V. **Numerical Solutions of the Gardner Equation via Trigonometric Quintic B-spline Collocation Method**  
 ERSOY HEPSON Ö.  
 Sakarya University Journal of Science, vol.22, pp.1, 2018 (Peer-Reviewed Journal)
- VI. **Solitary wave simulations of Complex Modified Korteweg-de Vries (CMKdV) Equation using Quintic Trigonometric B-Spline**  
 Ersoy Hepson Ö.  
 Anadolu Üniversitesi Bilim Ve Teknoloji Dergisi - B Teorik Bilimler, vol.6, no.2, pp.193-205, 2018 (Peer-Reviewed Journal)
- VII. **Generation of the trigonometric cubic B-spline collocation solutions for the Kuramoto-Sivashinsky(KS) equation**  
 ERSOY HEPSON Ö.  
 AIP Conference Proceedings, vol.1978, 2018 (Peer-Reviewed Journal)
- VIII. **An extended cubic B-spline finite element method for solving generalized Burgers-Fisher equation**  
 ERSOY HEPSON Ö.  
 AIP Conference Proceedings, vol.1978, 2018 (Peer-Reviewed Journal)
- IX. **Numerical Solution of Singularly Perturbed Problems via both Galerkin and Subdomain Galerkin methods**  
 ERSOY HEPSON Ö., DAĞ İ.  
 Applied Mathematics & Information Sciences, vol.12, no.3, pp.495-500, 2018 (Scopus)
- X. **The Trigonometric Cubic B-spline Algorithm for Burgers' Equation**  
 DAĞ İ., ERSOY HEPSON Ö., KAÇMAZ Ö.  
 International Journal of Nonlinear Science, vol.24, no.2, pp.120-128, 2017 (Peer-Reviewed Journal)
- XI. **The Numerical Approach to the Fisher's equation via Trigonometric Cubic B-spline Collocation Method**  
 ERSOY HEPSON Ö., DAĞ İ.

Communications in Numerical Analysis, vol.2017, no.2, pp.91-100, 2017 (Peer-Reviewed Journal)

**XII. The extended B spline collocation method for numerical solutions of Fisher equation**

ERSOY HEPSON Ö., DAĞ İ.

AIP Conference Proceedings, vol.1648, no.370011, 2015 (Peer-Reviewed Journal)

**XIII. Numerical solution of generalized Burgers Fisher equation by exponential cubic Bspline collocation method**

DAĞ İ., ERSOY HEPSON Ö.

AIP Conference Proceedings, vol.1648, no.370008, 2015 (Peer-Reviewed Journal)

**XIV. The Exponential Cubic B Spline Algorithm for Korteweg de Vries Equation**

Ersoy Hepson Ö., Dağ İ.

Advances in Numerical Analysis, vol.2015, no.42015, pp.1-8, 2015 (Peer-Reviewed Journal)

**XV. The exponential cubic spline algorithm for equal width equation**

DAĞ İ., ERSOY HEPSON Ö.

Advanced Studies in Contemporary Mathematics, vol.25, no.4, pp.525-535, 2015 (Scopus)

## Books

**I. Numerical Investigations of Physical Processes for Regularized Long Wave Equation**

Ersoy Hepson Ö., Yiğit G.

in: Advances in Intelligent Systems and Computing, Tofigh Allahviranloo, Soheil Salahsour, Nafiz Arica, Editor, Springer, London/Berlin, Zürich, pp.710-724, 2021

**II. Finite element method for Schnackenberg model**

Ersoy Hepson Ö., Dağ İ.

in: Mathematical Methods in Engineering, Applications in Dynamics of Complex Systems, Kenan Taş, Dumitru Baleanu, J. A. Tenreiro Machado, Editor, Springer, London/Berlin, Zürich, pp.41-51, 2019

## Papers Presented at Peer-Reviewed Scientific Conferences

**I. Least Squares Method for the Numerical Solution of Advection-Diffusion Equation**

DAĞ İ., ERSOY HEPSON Ö.

MAS 13th International European Conference on Mathematics, Engineering, Natural Medical Science, Afghanistan, 23 - 25 October 2020, (Full Text)

**II. Numerical Investigations of Physical Processes for Regularized Long Wave Equation**

ERSOY HEPSON Ö., YİĞİT G.

The 4th Online International Conference on Intelligent Decision Sciences (IDS 2020), 7 - 08 August 2020, (Full Text)

**III. Hyperbolic-trigonometric Tension B-spline Galerkin Approach for the Solution of RLW Equation"**

DAĞ İ., ERSOY HEPSON Ö.

Fourth International Conference of Mathematical Sciences (ICMS 2020), 17 - 21 June 2020, (Full Text)

**IV. Numerical Solution of the Time Fractional Korteweg-de Vries Equation by way of Quintic Trigonometric B-spline Integrator**

Ersoy Hepson Ö., Dağ İ.

5th International Conference on Engineering and Natural Science, Praha, Czech Republic, 12 - 16 June 2019, pp.13-21, (Full Text)

**V. Exponential B-spline Solution for the Time Fractional Burgers' Equation**

Ersoy Hepson Ö., Dağ İ.

5th International Conference on Engineering and Natural Science, Praha, Czech Republic, 12 - 16 June 2019, pp.123-131, (Full Text)

**VI. The Cubic Trigonometric B-spline Galerkin Method for the Fisher Equation**

ERSOY HEPSON Ö., DAĞ İ.

5th International Conference on Engineering and Natural Science, PRAG, Czech Republic, 12 - 16 June 2019, pp.81-90, (Full Text)

**VII. Finite Element Method for Schnakenberg Model**

Ersoy Hepson Ö., Dag İ.

International Symposium on Mathematical Methods in Engineering (MME), Ankara, Turkey, 27 - 29 April 2017, vol.24, pp.41-51, (Full Text)

**VIII. Finite element method for Schnackenberg model**

ERSOY HEPSON Ö., DAĞ İ.

The International Workshop on Mathematical Methods in Engineering (MME2017), 27 - 29 April 2017, pp.41-51, (Full Text)

**IX. Trigonometric B-spline Collocation and Galerkin methods for Time Fractional Burgers' Equation**

ERSOY HEPSON Ö., DAĞ İ.

INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World

Mathematicians" Minisymposium on Approximation Theory Minisymposium on Math Education", 3 - 06 July 2018, (Summary Text)

**X. Study on Time Fractional Korteweg-de Vries Equation via Subdomain Galerkin Method**

ERSOY HEPSON Ö.

INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World

Mathematicians" Minisymposium on Approximation Theory Minisymposium on Math Education", 3 - 06 July 2018, (Summary Text)

**XI. A cubic subdomain Galerkin method over the geometrically graded mesh to the singularly perturbed problem**

Ersoy Hepson Ö., Dag İ.

6th International Eurasian Conference on Mathematical Sciences and Applications, IECMSA 2017, Budapest, Hungary, 15 - 18 August 2017, vol.1926, (Full Text)

**XII. An Extended Cubic B-spline Finite Element Method for Solving Generalized Burgers-Fisher Equation**

ERSOY HEPSON Ö.

International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Thessaloniki, Greece, 25 - 30 September 2017, vol.1978, (Full Text)

**XIII. Higher Order Trigonometric B-spline Algorithms to the Solution of Coupled Burgers' Equation**

Tok Onarcan A., Ersoy Hepson Ö.

6th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Budapest, Hungary, 15 - 17 August 2017, vol.1926, (Full Text)

**XIV. Generation Of The Trigonometric Cubic B-spline Collocation Solutions for the Kuramoto-Sivashinsky(KS) Equation**

ERSOY HEPSON Ö.

International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Thessaloniki, Greece, 25 - 30 September 2017, vol.1978, (Full Text)

**XV. Hyperbolic tangent solution to the conformable time fractional Zakharov-Kuznetsov Equation in 3D space**

KORKMAZ A., ERSOY HEPSON Ö.

6th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Budapest, Hungary, 15 - 17 August 2017, vol.1926, (Full Text)

**XVI. Traveling waves in rational Expressions of Exponential Functions to the Conformable Time Fractional Jimbo-Miwa and Zakharov-Kuznetsov Equations**

KORKMAZ A., ERSOY HEPSON Ö.

International Congress on Fundamental and Applied Sciences 2017 (ICFAS2017), 21 - 25 August 2017, (Summary Text)

**XVII. A NUMERICAL APPROXIMATION TO THE SOLUTIONS OF THE CAHN-HILLARD EQUATION**

TOK ONARCAN A., ADAR N., ERSOY HEPSON Ö., DAĞ İ.

International Congress on Fundamental and Applied Sciences 2017 (ICFAS2017), Sarajevo, Bosnia And Herzegovina, 21 - 25 August 2017, (Summary Text)

- XVIII. **Numerical Study Based on Trigonometric B-splines for Boussinesq System of the Bona-Smith Family**  
ERSOY HEPSON Ö.  
International Congress on Fundamental and Applied Sciences 2017 (ICFAS2017), 21 - 25 August 2017, (Summary Text)
- XIX. **Traveling Wave Solutions to the Conformable Fractional Modified Zakharov-Kuznetsov Equation via Simple Ansatz**  
KORKMAZ A., ERSOY HEPSON Ö.  
3rd International Conference on Symmetries, Differential Equations and Applications (SDEA III), 14 - 17 August 2017, (Summary Text)
- XX. **Higher order Trigonometric B-spline Approximates**  
ERSOY HEPSON Ö., KORKMAZ A.  
Mathematic Days in Sofia (MDS 2017), sofya, Bulgaria, 10 - 14 July 2017, (Summary Text)
- XXI. **Least Squares Method for the numerical solution of Burgers'xx Equation**  
SAKA B., ERSOY HEPSON Ö.  
International Conference on Applied Analysis and Mathematical Modelling (ICAAMM2017), İstanbul, Turkey, 3 - 07 July 2017, (Summary Text)
- XXII. **Numerical Solutions of the Gardner Equation via Quintic Trigonometric B-Spline Collocation Method**  
ERSOY HEPSON Ö.  
International Conference on Mathematics and Engineering (ICOME 2017), 10 - 12 May 2017, (Summary Text)
- XXIII. **Solitary wave simulations of Complex Modified Korteweg-de Vries(CMKdV) Equation using Quintic Trigonometric B-Spline**  
ERSOY HEPSON Ö.  
International Conference on Mathematics and Engineering (ICOME 2017), 10 - 12 May 2017, (Summary Text)
- XXIV. **A Quartic Trigonometric B-spline Collocation Method for Solving the Kuramoto-Sivashinsky Equation**  
SAKA B., ERSOY HEPSON Ö., DAĞ İ.  
The International Workshop on Mathematical Methods in Engineering (MME2017), 27 - 29 April 2017, (Summary Text)
- XXV. **A Comparative Numerical Study Based on Cubic Polynomial and Trigonometric B-splines for the Gardner Equation**  
ERSOY HEPSON Ö., KORKMAZ A., DAĞ İ.  
The International Workshop on Mathematical Methods in Engineering (MME2017), 27 - 29 April 2017, (Summary Text)
- XXVI. **Numerical Solutions of Singularly Perturbed Problems via both Galerkin and Subdomain Galerkin methods**  
ERSOY HEPSON Ö., DAĞ İ.  
3rd International Conference on Pure and Applied Sciences, 2 - 06 February 2017, (Summary Text)
- XXVII. **Numerical Solutions of the Gardner Equation by Extended Form of the Cubic B-Splines**  
Ersoy Hepson Ö., Korkmaz A., Dağ İ.  
3rd International Conference on Pure and Applied Sciences, Dubai, United Arab Emirates, 2 - 06 February 2017, (Summary Text)
- XXVIII. **Exponential B-spline Collocation Solutions to the Gardner Equation**  
Ersoy Hepson Ö., Korkmaz A., Dağ İ.  
International Conference on Pure Applied Science (ICPAS 2017), Dubai, United Arab Emirates, 2 - 06 February 2017, (Summary Text)
- XXIX. **On the Numerical Solution of the Klein Gordon Equation by Exponential B Spline Collocation Method**  
Ersoy Hepson Ö., Korkmaz A., Dağ İ.  
Second International Conference on Analysis and its Applications, Kırşehir, Turkey, 12 - 15 July 2016, (Summary Text)
- XXX. **The Exponential Cubic B Spline Algorithms for Burgers Equation**

ERSOY HEPSON Ö., DAĞ İ., ADAR N.

International Conference on Quantum Science and Applications (ICQSA 2016), 25 - 27 May 2016, (Summary Text)

**XXXI. The Numerical Approach to the Fisher's Equation via Trigonometric Cubic B spline Collocation Method**

ERSOY HEPSON Ö., DAĞ İ.

International Conference on Natural Science and Engineering, 19 - 20 March 2016, (Summary Text)

**XXXII. A Trigonometric Cubic B spline Finite Element Method for Solving the Nonlinear Coupled Burgers Equation**

ERSOY HEPSON Ö., DAĞ İ.

International Conference on Advances in Applied and Computational Mechanics, İzmir, Turkey, 5 - 07 August 2015, (Summary Text)

**XXXIII. The Exponential Cubic B spline Collocation Method for Kuramoto Sivashinsky KS Equation**

ERSOY HEPSON Ö., DAĞ İ.

International Conference on Recent Advances in Pure and Applied Mathematics, ICRAPAM 2015, İstanbul, Turkey, 3 - 06 June 2015, (Summary Text)

**XXXIV. Numerical Solutions of the Reaction Diffusion Equation System by Exponential Cubic B spline Collocation method**

ERSOY HEPSON Ö., DAĞ İ.

International Conference on Applied Analysis and Mathematical Modelling, ICAAMM 2015, İstanbul, Turkey, 8 - 12 June 2015, (Summary Text)

**XXXV. Numerical Solutions of the Reaction Diffusion Equation System via Exponential Cubic B spline Collocation method**

ERSOY HEPSON Ö., DAĞ İ.

International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 8 - 12 June 2015, (Summary Text)

**XXXVI. The Exponential Cubic B spline Collocation Method for the Kuramoto Sivashinsky KS Equation**

ERSOY HEPSON Ö., DAĞ İ.

2nd International Conference on Recent Advances in Pure and Applied Mathematics, İstanbul, Turkey, 3 - 06 June 2015, (Summary Text)

**XXXVII. Numerical Solution of Generalized Burgers-Fisher Equation by Exponential Cubic B-Spline Collocation Method**

Dağ İ., ERSOY HEPSON Ö.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 22 - 28 September 2014, vol.1648, (Full Text)

**XXXVIII. The Extended B-Spline Collocation Method for Numerical Solutions of Fisher Equation**

Ersoy Hepson Ö., Dağ İ.

International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 22 - 28 September 2014, vol.1648, (Full Text)

**XXXIX. The Exponential Cubic B-Spline Algorithm for Fisher Equation**

DAĞ İ., ERSOY HEPSON Ö.

3rd International Eurasian Conference On Mathematical Sciences and Applications (IECMSA 2014), Austria, 25 - 28 August 2014, (Summary Text)

**XL. The Exponential Cubic B-Spline Algorithm for Korteweg-de Vries (KDV) Equation**

ERSOY HEPSON Ö., DAĞ İ.

3rd International Eurasian Conference On Mathematical Sciences and Applications (IECMSA 2014), Austria, 25 - 28 August 2014, (Summary Text)

**XLI. The Exponential Cubic B-Spline Algorithm for Equal Width Equation**

DAĞ İ., ERSOY HEPSON Ö.

Karatekin Mathematics Days (KMD 2014), Turkey, 11 - 13 June 2014, (Full Text)



## Funded Projects

ERSOY HEPSON Ö., Project Supported by Higher Education Institutions, Zaman Kesirli Kısmi Diferansiyel Denklemlerin B-spline Sonlu Eleman Yöntemleri ile Çözümleri, 2018 - 2019

DAĞ İ., ERSOY HEPSON Ö., Project Supported by Higher Education Institutions, Gardner denkleminin bazı kübik ve kuartik B spline fonksiyon tabanlı Kolokasyon yöntemi ile sayısal çözümlerinin bulunması ve karşılaştırılması, 2016 - 2017

## Peer Reviews in Scientific Publications

MATHEMATICAL SCIENCES, Journal Indexed in SCI-E, August 2021

PHYSICA SCRIPTA, Journal Indexed in SCI-E, May 2021

CHAOS SOLITONS & FRACTALS, SCI Journal, March 2021

MATHEMATICAL SCIENCES, Journal Indexed in SCI-E, February 2021

ADVANCES IN DIFFERENCE EQUATIONS, Journal Indexed in SCI-E, February 2021

Results In Mathematics, Journal Indexed in SCI-E, February 2021

MATHEMATICAL SCIENCES, Journal Indexed in SCI-E, January 2021

PHYSICA SCRIPTA, Journal Indexed in SCI-E, January 2021

MATHEMATICAL SCIENCES, Journal Indexed in SCI-E, January 2021

PHYSICA SCRIPTA, Journal Indexed in SCI-E, December 2020

INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, Journal Indexed in SCI-E, December 2020

CHAOS SOLITONS & FRACTALS, SCI Journal, December 2020

MATHEMATICS AND COMPUTERS IN SIMULATION, Journal Indexed in SCI-E, November 2020

RESULTS IN MATHEMATICS, Journal Indexed in SCI-E, November 2020

INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN BIOMEDICAL ENGINEERING, Journal Indexed in SCI-E, November 2020

NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, Journal Indexed in SCI-E, November 2020

CHAOS SOLITONS & FRACTALS, SCI Journal, November 2020

PHYSICA SCRIPTA, Journal Indexed in SCI-E, September 2020

ADVANCES IN DIFFERENCE EQUATIONS, Journal Indexed in SSCI, August 2020

INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, Journal Indexed in SCI-E, May 2020

ADVANCES IN DIFFERENTIAL EQUATIONS, Journal Indexed in SCI-E, February 2020

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, Journal Indexed in SCI-E, February 2020

NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, SCI Journal, November 2019

MATHEMATICS AND COMPUTERS IN SIMULATION, Journal Indexed in SCI-E, October 2019

TWMS Journal of Applied and Engineering Mathematics, Journal Indexed in ESCI, March 2018

MULTIDISCIPLINE MODELING IN MATERIALS AND STRUCTURES, Journal Indexed in ESCI, February 2018

NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, Journal Indexed in SCI-E, June 2017

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## Metrics

Publication: 84

Citation (WoS): 333

Citation (Scopus): 415

H-Index (WoS): 10

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## **Awards**

Ersoy Hepson Ö., Certificate of Research Excellence, Vice President Of African Academy Of Sciences, February 2018