

Assoc. Prof. ÖMER ÜNSAL

Personal Information

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Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), Turkey 2012 - 2016

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (YI) (Tezli), Turkey 2010 - 2012

Undergraduate, Anadolu University, Faculty Of Economics, Department Of Economics, Turkey 2008 - 2012

Undergraduate, Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 2006 - 2010

Dissertations

Doctorate, Lineer olmayan denklemlerin integrallenebilirliği, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (Dr), 2016

Postgraduate, Diskrit oluşum denklemlerinin integrallenebilirliği, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik-Bilgisayar Bilimleri (YI) (Tezli), 2012

Research Areas

Natural Sciences

Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2021 - Continues

Assistant Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2016 - 2021

Research Assistant, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2010 - 2016

Courses

Oyun Teori, Undergraduate, 2017 - 2018

Diferensiyel Denklemler II, Undergraduate, 2017 - 2018

Diferensiyel Denklemler, Undergraduate, 2017 - 2018, 2016 - 2017

Biyomatematik, Undergraduate, 2017 - 2018

Fark Denklemleri I, Undergraduate, 2017 - 2018

Kısmi Türevli Diferensiyel Denklemlerin Sayısal Uygulamaları II, Undergraduate, 2017 - 2018, 2016 - 2017

Volterra-Fredholm İntegral Denklemleri, Postgraduate, 2017 - 2018
Kompleks Analiz, Undergraduate, 2017 - 2018
İntegrallenebilirlik Teorisi, Doctorate, 2017 - 2018
Diferensiyel Denklemlerin Kompleksiton Çözümleri, Doctorate, 2017 - 2018
Matematik II, Undergraduate, 2017 - 2018
Diferensiyel Denklemler I, Undergraduate, 2017 - 2018
Genelleştirilmiş Bilineer Türevler Teorisi, Postgraduate, 2017 - 2018
Matematik, Undergraduate, 2017 - 2018
Matematiksel Fizik, Undergraduate, 2017 - 2018
Genel Matematik II, Undergraduate, 2017 - 2018, 2016 - 2017
Analiz II, Undergraduate, 2016 - 2017

Advising Theses

ÜNSAL Ö., Linear Olmayan Oluşum Denklemlerinin Dalga Çözümleri ve Analizleri, Postgraduate, S.KARA(Student), 2020
ÜNSAL Ö., Linear olmayan kısmi diferensiyel denklemlerin kompleksiton çözümleri, Postgraduate,
Z.SAKARTEPE(Student), 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **An useful procedure for finding exact solutions to new form of (2+1)-dimensional B-type Kadomtsev-Petviashvili (BKP) equation**
ÜNSAL Ö., Sakartepe Z.
EUROPEAN PHYSICAL JOURNAL PLUS, vol.135, no.8, 2020 (SCI-Expanded)
- II. **Complexiton solutions for (3+1) dimensional KdV-type equation**
ÜNSAL Ö.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.75, no.7, pp.2466-2472, 2018 (SCI-Expanded)
- III. **Multiple-Wave Solutions to Generalized Bilinear Equations in Terms of Hyperbolic and Trigonometric Solutions**
ÜNSAL Ö., Ma W., Zhang Y.
INTERNATIONAL JOURNAL OF NONLINEAR SCIENCES AND NUMERICAL SIMULATION, vol.18, no.5, pp.395-401, 2017 (SCI-Expanded)
- IV. **Conservation laws and double reduction of (2+1) dimensional Calogero-Bogoyavlenskii-Schiff equation**
SAN S., Akbulut A., ÜNSAL Ö., TAŞCAN F.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.40, no.5, pp.1703-1710, 2017 (SCI-Expanded)
- V. **Complexiton solutions for two nonlinear partial differential equations via modification of simplified Hirota method**
ÜNSAL Ö., Bekir A., TAŞCAN F., ÖZER M. N.
WAVES IN RANDOM AND COMPLEX MEDIA, vol.27, no.1, pp.117-128, 2017 (SCI-Expanded)
- VI. **A novel kind of AKNS integrable couplings and their Hamiltonian structures**
Zhang Y., Ma W., ÜNSAL Ö.
TURKISH JOURNAL OF MATHEMATICS, vol.41, no.6, pp.1467-1476, 2017 (SCI-Expanded)
- VII. **Analytical approach for space-time fractional Klein-Gordon equation**
ÜNSAL Ö., GÜNER Ö., Bekir A.
OPTIK, vol.135, pp.337-345, 2017 (SCI-Expanded)
- VIII. **Exact solutions of nonlinear Schrodinger equation by using symbolic computation**
Kaplan M., ÜNSAL Ö., Bekir A.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.39, no.8, pp.2093-2099, 2016 (SCI-Expanded)

- IX. **Linear superposition principle of hyperbolic and trigonometric function solutions to generalized bilinear equations**
 ÜNSAL Ö., Ma W.
 COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.71, no.6, pp.1242-1247, 2016 (SCI-Expanded)
- X. **APPLICATIONS OF FRACTIONAL COMPLEX TRANSFORM AND (G'/G) -EXPANSION METHOD FOR TIME-FRACTIONAL DIFFERENTIAL EQUATIONS**
 Bekir A., GÜNER Ö., ÜNSAL Ö., Mirzazadeh M.
 JOURNAL OF APPLIED ANALYSIS AND COMPUTATION, vol.6, no.1, pp.131-144, 2016 (SCI-Expanded)
- XI. **Two reliable methods for solving the time fractional Clannish Random Walker's Parabolic equation**
 GÜNER Ö., Bekir A., ÜNSAL Ö.
 OPTIK, vol.127, no.20, pp.9571-9577, 2016 (SCI-Expanded)
- XII. **Soliton Solutions, Backlund Transformation and Lax Pair for Coupled Burgers System via Bell Polynomials**
 ÜNSAL Ö., TAŞCAN F.
 ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.70, no.5, pp.359-363, 2015 (SCI-Expanded)
- XIII. **The First Integral Method for Exact Solutions of Nonlinear Fractional Differential Equations**
 Bekir A., Guner O., ÜNSAL Ö.
 JOURNAL OF COMPUTATIONAL AND NONLINEAR DYNAMICS, vol.10, no.2, 2015 (SCI-Expanded)
- XIV. **Multiscale expansions in discrete world**
 ÜNSAL Ö., TAŞCAN F., ÖZER M. N.
 PRAMANA-JOURNAL OF PHYSICS, vol.83, no.1, pp.21-28, 2014 (SCI-Expanded)
- XV. **New exact solutions for boussinesq type equations by using $(G_0=G; 1=G)$ and $(1=G_0)$ -expansion methods**
 Demiray S., Unsal Ö., Bekir A.
 Acta Physica Polonica A, vol.125, no.5, pp.1093-1098, 2014 (SCI-Expanded)
- XVI. **Analytic treatment of nonlinear evolution equations using first integral method**
 Bekir A., ÜNSAL Ö.
 PRAMANA-JOURNAL OF PHYSICS, vol.79, no.1, pp.3-17, 2012 (SCI-Expanded)
- XVII. **Periodic and solitary wave solutions of coupled nonlinear wave equations using the first integral method**
 Bekir A., ÜNSAL Ö.
 PHYSICA SCRIPTA, vol.85, no.6, 2012 (SCI-Expanded)

Articles Published in Other Journals

- I. **Analytical solutions to new forms of two nonlinear partial differential equations via two variable expansion method**
 Kara S., ÜNSAL Ö.
 Partial Differential Equations in Applied Mathematics, vol.5, 2022 (Scopus)
- II. **Complexiton solutions for new form of $(3+1)$ -dimensional BKP-Boussinesq equation**
 ÜNSAL Ö.
 Journal of Ocean Engineering and Science, 2022 (Scopus)
- III. **Implementation of two variable expansion method for extended Jimbo–Miwa equations**
 Kara S., ÜNSAL Ö.
 Journal of Ocean Engineering and Science, 2022 (Scopus)
- IV. **Application of Extended Transformed Rational Function Method to Some $(3+1)$ Dimensional Nonlinear Evolution Equations**
 ÜNSAL Ö.
 Karaelmas Science and Engineering Journal, vol.8, no.2, pp.433-437, 2018 (Peer-Reviewed Journal)

- V. **NONLINEAR SELF ADJOINTNESS AND EXACT SOLUTION OF FOKAS-OLVER-ROSENAU-QIAO (FORQ) EQUATION**
 TAŞCAN F., ÜNSAL Ö., Akbulut A., SAN S.
 COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.67, no.2, pp.317-326, 2018 (ESCI)
- VI. **Exact solutions of nonlinear wave equations using $(G'/G, 1/G)$ -expansion method**
 DEMİRAY S., ÜNSAL Ö., BEKİR A.
 Journal of the Egyptian Mathematical Society, vol.23, no.1, pp.78-84, 2015 (Peer-Reviewed Journal)
- VII. **Exact solutions of the Zoomeron and Klein Gordon Zakharov equations**
 BEKİR A., TAŞCAN GÜNEY F., ÜNSAL Ö.
 Journal of the Association of Arab Universities for Basic and Applied Sciences, vol.17, no.1, pp.1-5, 2015 (Peer-Reviewed Journal)
- VIII. **Exact Solutions for a Class of Nonlinear Wave Equations By Using First Integral Method**
 BEKİR A., ÜNSAL Ö.
 International Journal of Nonlinear Science, vol.15, no.2, pp.99-110, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **An Efficient Method for Finding Trigonometric, Hyperbolic and Mixed Type Exact Solutions to New Form of (21)-Dimensional BKP Equation**
 ÜNSAL Ö.
 International Symposium on Academic Studies in Science, Engineering and Architecture Sciences, Ankara, Turkey, 15 - 17 November 2019, pp.133
- II. **Complexiton and Interaction solutions for (21)-Dimensional Sawada-Kotera equation**
 ÜNSAL Ö.
 Recent Advances in Mathematical and Engineering Sciences: International Mathematics and Engineering Conference, 24-26 July 2019 Lviv, Ukraine, Lviv, Ukraine, 24 - 26 July 2019, pp.21
- III. **New Exact Solutions for New Form of (31)-Dimensional BKP-Boussinesq Equation**
 ÜNSAL Ö.
 Recent Advances in Mathematical and Engineering Sciences: International Mathematics and Engineering Conference, 24-26 July 2019 Lviv, Ukraine, Lviv, Ukraine, 24 - 26 July 2019, pp.19
- IV. **On the Complexiton Solutions of Generalized Bilinear Equations via Extended Transformed Rational Function Method**
 ÜNSAL Ö., TAŞCAN GÜNEY F.
 INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World Mathematicians" Minisymposium on Approximation Theory Minisymposium on Math Education, İstanbul, Turkey, 3 - 06 July 2018, pp.279
- V. **Modified Double Sub-Equation Method for Solving Nonlinear Evolution Equations**
 ÜNSAL Ö., KOPARAN M.
 7th International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 20 - 24 June 2018, pp.219
- VI. **Multiple Scales Method for Higher Order KdV Equation**
 Çakır F., KOPARAN M., ÜNSAL Ö.
 International Conference on Mathematical Advances and Application, İstanbul, Turkey, 11 - 13 May 2018, pp.56
- VII. **Construction of Exact Solutions to Partial Differential Equations with Trial Method**
 TAŞCAN GÜNEY F., Pir L. B., ÜNSAL Ö.
 3rd International Conference on Computational Mathematics and Engineering Sciences, Girne, Cyprus (Kktc), 4 - 06 May 2018
- VIII. **Extended Transformed Rational Function Method for Some (31)Dimensional Nonlinear Partial Differential Equations**

ÜNSAL Ö., BEKİR A., KOPARAN M.

6th International Eurasian Conference on Mathematical Sciences and Applications, Budapest, Hungary, 15 - 18 August 2017, pp.160-161

IX. Simplified Hirota Method for a Nonlinear Partial Differential Equation

ÜNSAL Ö., BEKİR A., KOPARAN M.

6th International Eurasian Conference on Mathematical Sciences and Applications, Budapest, Hungary, 15 - 18 August 2017, pp.158-159

X. Soliton solution and other solutions to a nonlinear fractional differential equation

GÜNER Ö., ÜNSAL Ö., Bekir A., Kadem A.

11th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), La Rochelle, France, 4 - 08 July 2016, vol.1798

XI. The (G'/G) -expansion method for the nonlinear time fractional differential equations

ÜNSAL Ö., GÜNER Ö., Bekir A., ÇEVİKEL A. C.

11th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), La Rochelle, France, 4 - 08 July 2016, vol.1798

XII. Singular 1-soliton solution of the nonlinear variable-coefficient diffusion reaction and mKdV equations

GÜNER Ö., Bekir A., ÜNSAL Ö., ÇEVİKEL A. C.

11th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences (ICNPAA), La Rochelle, France, 4 - 08 July 2016, vol.1798

XIII. Analytical approach for space time fractional Klein Gordon equation

ÜNSAL Ö., GÜNER Ö., BEKİR A.

International Conference on Quantum Science and Applications, Eskişehir, Turkey, 25 - 27 May 2016, pp.161

XIV. Complexiton solutions for some nonlinear partial differential equations

ÜNSAL Ö., BEKİR A., TAŞCAN GÜNEY F., ÖZER M. N.

ICQSA-2016, 25 - 27 May 2016

XV. Exact solutions of some fractional differential equations by various expansion methods

Topsakal M., GÜNER Ö., Bekir A., ÜNSAL Ö.

International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Turkey, 25 - 27 May 2016, vol.766

XVI. Application of Binary Bell Polynomial Approach to a 2 1 Dimensional Nonlinear Evolution Equation

ÜNSAL Ö., TAŞCAN GÜNEY F., ÖZER M. N.

IECMSA-2014, 3rd International Eurasian Conference on Mathematical Sciences and Applications, Viyana, Austria, 25 - 28 August 2014, pp.247-248

XVII. An efficient method for solving the nonlinear fractional Klein Gordon type equations

ÜNSAL Ö., BEKİR A., GÜNER Ö.

Karatekin Mathematics Days-International Symposium on Mathematics, Çankırı, Turkey, 11 - 13 June 2014, pp.130

XVIII. Çok Ölçekli Açılım Metodunun Diferensiyel Fark Denklemlerine Uygulamaları

ÜNSAL Ö., TAŞCAN GÜNEY F., ÖZER M. N.

13. Matematik Sempozyumu, Turkey, 15 - 17 May 2014

XIX. Lineer Olmayan Schrödinger Denkleminin Hareketli Dalga Çözümleri

KAPLAN M., ÜNSAL Ö., BEKİR A.

8. Ankara Matematik Günleri, Ankara, Turkey, 13 - 14 June 2013, pp.50

XX. Travelling Wave Solutions of Nonlinear Equations Using the $(G'/G, 1/G)$ Expansion Method

DEMİRAY S., ÜNSAL Ö., BEKİR A.

International Conference on Applied Analysis and Mathematical Modeling (ICAAMM2013), İstanbul, Turkey, 2 - 05 June 2013, pp.428-429

XXI. Lineer Olmayan Oluşum Denklemlerinin $(G'/G, 1/G)$ Metodu ile Hareketli Dalga Çözümleri

ÜNSAL Ö., DEMİRAY S., BEKİR A.

12. Matematik Sempozyumu, Ankara, Turkey, 23 - 25 May 2013, pp.311-313

Metrics

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