

## Prof. Dr. DOĞAN KAYA

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: ABD-9843-2020

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### Eğitim Bilgileri

Doktora, University of Newcastle Upon Tyne, Fen Bilimler Enstitüsü, Bilgisayar Bilimleri Bölümü, İngiltere 1992 - 1995

Yüksek Lisans, Fırat Üniversitesi, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Türkiye 1988 - 1990

Lisans, Van Yüzüncü Yıl Üniversitesi, Fen-Edebiyat Fakültesi, Matematik Bölümü, Türkiye 1984 - 1988

### Yabancı Diller

İngilizce, C1 İleri

### Yaptığı Tezler

Doktora, Parallel Algorithms for Linear Algebra on a Shared Memory Multiprocessor, University of Newcastle Upon Tyne, Fen Bilimler Enstitüsü, Bilgisayar Bilimleri Bölümü, 1995

Yüksek Lisans, Lineer olmayan differensiyel denklemler, Fırat Üniversitesi, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 1990

### Araştırma Alanları

Bilgisayar Bilimleri, Fiziğin Matematiksel Yöntemleri, Temel Bilimler

### Akademik Unvanlar / Görevler

Prof. Dr., İstanbul Ticaret Üniversitesi, İnsan ve Toplum Bilimleri Fakültesi, Matematik Bölümü, 2011 - Devam Ediyor

Prof. Dr., Fırat Üniversitesi, Fen Fakültesi, Matematik Bölümü, 2006 - 2011

Doç. Dr., Fırat Üniversitesi, Fen Fakültesi, Matematik Bölümü, 2000 - 2006

Yrd. Doç. Dr., Fırat Üniversitesi, Fen Fakültesi, Matematik Bölümü, 1995 - 2000

Araştırma Görevlisi, University of Newcastle Upon Tyne, FEN, BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 1991 - 1995

## Akademik İdari Deneyim

Bölüm Başkanı, İstanbul Ticaret Üniversitesi, İnsan Ve Toplum Bilimleri Fakültesi, Matematik Bölümü, 2022 - Devam Ediyor

Enstitü Müdürü, İstanbul Ticaret Üniversitesi, Fen Bilimleri Enstitüsü, 2022 - 2024

Enstitü Müdürü, İstanbul Ticaret Üniversitesi, Fen Bilimleri Enstitüsü, 2014 - 2017

Bölüm Başkanı, İstanbul Ticaret Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2011 - 2014

Rektör Yardımcısı, Ardahan Üniversitesi, 2008 - 2010

Dekan, Ardahan Üniversitesi, Mühendislik Fakültesi, 2008 - 2010

Bölüm Başkan Yardımcısı, Fırat Üniversitesi, Fen Fakültesi, Matematik Bölümü, 2002 - 2005

## Verdiği Dersler

### Doktora

Kısmi Diferansiyel Denklemler İçin Sonlu Elemanlar Yöntemi, Doktora, 2016 - 2017

Mühendislikte Sonlu Elemanlar Yöntemi, Doktora, 2016 - 2017

Lineer Olmayan Diferansiyel Denklemler, Doktora, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2000 - 2001

### Yüksek Lisans

Random Process, Yüksek Lisans, 2017 - 2018

SEMINAR , Yüksek Lisans, 2016 - 2017

### Lisans

BİTİRME PROJESİ, Lisans, 2023 - 2024

Diferansiyel Denklemler 2, Lisans, 2023 - 2024

Business Mathematics 2, Lisans, 2023 - 2024

Yapay Sinir Ağları, Lisans, 2023 - 2024

Bilgisayar Programlama 2, Lisans, 2023 - 2024

Diferansiyel Denklemler I , Lisans, 2023 - 2024, 2022 - 2023

Nümerik Analiz 1, Lisans, 2023 - 2024

Kariyer Planlama, Lisans, 2023 - 2024

Bilgisayar Programlama I, Lisans, 2023 - 2024

Business Mathematics 1, Lisans, 2023 - 2024

Diferansiyel Denklemler II, Lisans, 2022 - 2023, 2012 - 2013, 2011 - 2012

KISMİ DİFERANSİYEL DENKLEMLER, Lisans, 2021 - 2022

Lineer Cebir 1 ve 2, Lisans, 2021 - 2022

Mathematics 1 and 2, Lisans, 2021 - 2022

Matematik 1 ve 2, Lisans, 2021 - 2022

ENGINEERING MATHEMATICS I and II, Lisans, 2020 - 2021, 2019 - 2020, 2018 - 2019

Mathematical Analysis I ve II, Lisans, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012

Mühendislik Matematiği I ve II, Lisans, 2020 - 2021

Lineer Cebir 1, Lisans, 2019 - 2020

Rastgele Süreç, Lisans, 2017 - 2018

ENGINEERING MATHEMATICS II, Lisans, 2016 - 2017

ENGINEERING MATHEMATICS I, Lisans, 2016 - 2017

MATHEMATICS II, Lisans, 2016 - 2017

Mathematical Analysis I, Lisans, 2016 - 2017

Mathematical Analysis II, Lisans, 2016 - 2017

MATHEMATICS I, Lisans, 2016 - 2017

Nümerik Analiz, Lisans, 2013 - 2014, 2012 - 2013, 2011 - 2012

Differential Equation , Lisans, 2012 - 2013

Nümerik Analiz, Lisans, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2000 - 2001

## Yönetilen Tezler

DOĞAN K., Başlangıç ve sınır koşullarına sahip bazı lineer olmayan kısmi diferansiyel denklemler için simetri analizi, Doktora, G.İSKENDEROĞLU(Öğrenci), 2020

DOĞAN K., İntegrallenebilir denklemler için soliton çözümler ve uygulamaları, Yüksek Lisans, B.KUTLU(Öğrenci), 2015

DOĞAN K., Bazı lineer olmayan kısmi diferansiyel denklemlerin özel dönüşümler yardımıyla dalga çözümleri ve bu çözümlerin analizleri, Doktora, S.DURAN(Öğrenci), 2012

DOĞAN K., Lineer olmayan kısmi diferansiyel denklemlerin hareket eden dalga çözümleri için bazı metotlar ve çözümlerin sayısal analizleri, Doktora, B.KILIÇ(Öğrenci), 2012

DOĞAN K., Bazı özel lineer olmayan diferansiyel denklemlerin çözümlerinin elde edilmesi ve bu çözümlerin karşılaştırılması, Doktora, A.YOKUŞ(Öğrenci), 2011

DOĞAN K., Bazı lineer olmayan kısmi diferansiyel denklemlerin periyodik dalga çözümleri, Doktora, Y.UĞURLU(Öğrenci), 2010

DOĞAN K., Lineer ve lineer olmayan diferansiyel denklemlerin sayısal çözümlerinin elde edilmesi ve elde edilen sonuçların irdelenmesi, Yüksek Lisans, Z.SARIATEŞ(Öğrenci), 2010

DOĞAN K., Diferansiyel denklemlerin çözümlerinin asimptotik davranışı ve kararlılığı, Yüksek Lisans, S.DURAN(Öğrenci), 2006

DOĞAN K., Difüzyon denklemlerin çözümlerinin patlaması, Yüksek Lisans, Y.UĞURLU(Öğrenci), 2005

DOĞAN K., Doğrusal olmayan parabolik veya hiperbolik diferansiyel denklemlerde global çözümlerin yokluğu (blow up), Doktora, N.POLAT(Öğrenci), 2005

DOĞAN K., Kısmi diferansiyel denklemler için bazı yaklaşım metodları ve uygulamaları, Doktora, İ.ENAM(Öğrenci), 2004

DOĞAN K., Kısmi diferansiyel denklemlerin çözümlerinin azalması ve kararlılığı, Yüksek Lisans, T.BAKI(Öğrenci), 2003

DOĞAN K., Başlangıç ve sınır değer problemlerinin seriler yardımı ile çözümleri, Yüksek Lisans, S.ÇİÇEK(Öğrenci), 2002

DOĞAN K., Burgers denkleminin sayısal çözümlerinin karşılaştırılması üzerine bir çalışma, Yüksek Lisans, A.YOKUŞ(Öğrenci), 2002

DOĞAN K., Lineer cebirsel denklem sistemlerinin sayısal çözümleri ve bu çözümlerin sayısal irdelenmesi, Yüksek Lisans, İ.ENAM(Öğrenci), 1999

DOĞAN K., Kısmi diferansiyel denklemlerin analitik çözümleri ve sayısal çözümlerinin karşılaştırılması, Yüksek Lisans, T.TUTAK(Öğrenci), 1999

## Jüri Üyelikleri

Doçentlik Sınavı, Doçentlik Sınavı, GEBZE TEKNİK ÜNİVERSİTESİ, Mayıs, 2024

Akademik Kadroya Atama-Yardımcı Doçentlik, Akademik Kadroya Atama-Yardımcı Doçentlik, Yıldız Teknik Üniversitesi, Ocak, 2024

Doçentlik Sınavı, Doçentlik Sınavı, Eskişehir Osmangazi Üniversitesi, Aralık, 2023

Doçentlik Sınavı, Doçentlik Sınavı, GAZİANTEP ÜNİVERSİTESİ, Ekim, 2023

Doçentlik Sınavı, Doçentlik Sınavı, BAĞÇESEHİR ÜNİVERSİTESİ, Ekim, 2023

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

1. Evolution dynamics of fundamental mechanisms of wave propagation in gas bubble-liquid interactions and soliton solutions

Duran S., Yokuş A., Kaya D.

PHYSICA SCRIPTA, cilt.100, sa.2, ss.1-11, 2025 (SCI-Expanded)

- II. **An expansion method for generating travelling wave solutions for the  $(2 + 1)$ -dimensional Bogoyavlensky-Konopelchenko equation with variable coefficients**  
Yokuş A., Duran S., KAYA D.  
Chaos, Solitons and Fractals, cilt.178, 2024 (SCI-Expanded)
- III. **Application of some nonclassical methods for p-defocusing complex Klein–Gordon equation**  
Yokus A., İSKENDEROĞLU G., KAYA D.  
Optical and Quantum Electronics, cilt.55, sa.5, 2023 (SCI-Expanded)
- IV. **Chirped self-similar pulses and envelope solutions for a nonlinear Schrödinger's in optical fibers using Lie group method**  
İSKENDEROĞLU G., KAYA D.  
Chaos, Solitons and Fractals, cilt.162, 2022 (SCI-Expanded)
- V. **Refraction simulation of internal solitary waves for the fractional Benjamin-Ono equation in fluid dynamics**  
Duran S., Yokuş A., Durur H., KAYA D.  
Modern Physics Letters B, cilt.35, sa.26, 2021 (SCI-Expanded)
- VI. **Breaking analysis of solitary waves for the shallow water wave system in fluid dynamics**  
Duran S., KAYA D.  
European Physical Journal Plus, cilt.136, sa.9, 2021 (SCI-Expanded)
- VII. **Comparison exact and numerical simulation of the traveling wave solution in nonlinear dynamics**  
Yokus A., KAYA D.  
International Journal of Modern Physics B, cilt.34, sa.29, 2020 (SCI-Expanded)
- VIII. **Role of Gilson–Pickering equation for the different types of soliton solutions: a nonlinear analysis**  
Yokuş A., Durur H., Abro K. A., KAYA D.  
European Physical Journal Plus, cilt.135, sa.8, 2020 (SCI-Expanded)
- IX. **Symmetry analysis of initial and boundary value problems for fractional differential equations in Caputo sense**  
İSKENDEROĞLU G., KAYA D.  
Chaos, Solitons and Fractals, cilt.134, 2020 (SCI-Expanded)
- X. **Lie group analysis for initial and boundary value problem of time-fractional nonlinear generalized KdV partial differential equation**  
KAYA D., İSKENDEROĞLU G.  
Turkish Journal of Mathematics, cilt.43, sa.3, ss.1263-1275, 2019 (SCI-Expanded)
- XI. **Solutions of the fractional combined KdV–mKdV equation with collocation method using radial basis function and their geometrical obstructions**  
KAYA D., Gülbahar S., Yokuş A., Gülbahar M.  
Advances in Difference Equations, cilt.2018, sa.1, 2018 (SCI-Expanded)
- XII. **Numerical solutions of the Fractional Kdv-Burgers-Kuramoto equation**  
KAYA D., Gulbahar S., Yokus A.  
Thermal Science, cilt.22, 2018 (SCI-Expanded)
- XIII. **Comparison of three semi-analytical methods for solving  $(1+1)$ -dimensional dispersive long wave equations**  
Ugurlu Y., KAYA D., Inan I. E.  
Computers and Mathematics with Applications, cilt.61, sa.5, ss.1278-1290, 2011 (SCI-Expanded)
- XIV. **Reply to Comment on 'Exact solutions to the various nonlinear evolution equations'**  
KAYA D., Inan I. E.  
Physica Scripta, cilt.83, sa.1, 2011 (SCI-Expanded)
- XV. **Auto-Bäcklund transformation and similarity reductions for coupled Burger's equation**  
Inan I. E., KAYA D., Ugurlu Y.  
Applied Mathematics and Computation, cilt.216, sa.9, ss.2507-2511, 2010 (SCI-Expanded)

- XVI. **Exact solutions to the various nonlinear evolution equations**  
KAYA D., Inan I. E.  
Physica Scripta, cilt.79, sa.4, 2009 (SCI-Expanded)
- XVII. **Existence, asymptotic behaviour, and blow up of solutions for a class of nonlinear wave equations with dissipative and dispersive terms**  
Polat N., KAYA D.  
Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, cilt.64, sa.5-6, ss.315-326, 2009 (SCI-Expanded)
- XVIII. **Application of new triangular functions to nonlinear partial differential equations**  
Abdel-Salam E. A., KAYA D.  
Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, cilt.64, sa.1-2, ss.1-7, 2009 (SCI-Expanded)
- XIX. **Solutions of the Cahn-Hilliard equation**  
Ugurlu Y., KAYA D.  
Computers and Mathematics with Applications, cilt.56, sa.12, ss.3038-3045, 2008 (SCI-Expanded)
- XX. **Exact and numerical solutions of generalized Drinfeld-Sokolov equations**  
Ugurlu Y., KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, cilt.372, sa.16, ss.2867-2873, 2008 (SCI-Expanded)
- XXI. **Analytic method for solitary solutions of some partial differential equations**  
Uğurlu Y., KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, cilt.370, sa.3-4, ss.251-259, 2007 (SCI-Expanded)
- XXII. **Exact solutions of some nonlinear partial differential equations**  
Inan I. E., KAYA D.  
Physica A: Statistical Mechanics and its Applications, cilt.381, sa.1-2, ss.104-115, 2007 (SCI-Expanded)
- XXIII. **A numerical comparison of a Kawahara equation**  
KAYA D., Al-Khaled K.  
Physics Letters, Section A: General, Atomic and Solid State Physics, cilt.363, sa.5-6, ss.433-439, 2007 (SCI-Expanded)
- XXIV. **A analytic and numerical solution to a modified Kawahara equation and a convergence analysis of the method**  
Polat N., KAYA D., Tutalar H. I.  
Applied Mathematics and Computation, cilt.181, sa.1, ss.193-199, 2006 (SCI-Expanded)
- XXV. **A analytic and numerical solution to a modified Kawahara equation and a convergence analysis of the method**  
Polat N., KAYA D., Tutalar H. I.  
Applied Mathematics and Computation, cilt.179, sa.2, ss.466-472, 2006 (SCI-Expanded)
- XXVI. **Some exact solutions to the potential Kadomtsev-Petviashvili equation and to a system of shallow water wave equations**  
Inan I. E., KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, cilt.355, sa.4-5, ss.314-318, 2006 (SCI-Expanded)
- XXVII. **A numerical solution and an exact explicit solution of the NLS equation**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.172, sa.2 SPEC. ISS., ss.1315-1322, 2006 (SCI-Expanded)
- XXVIII. **The exact and numerical solitary-wave solutions for generalized modified Boussinesq equation**  
KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, cilt.348, sa.3-6, ss.244-250, 2006 (SCI-Expanded)
- XXIX. **Blow up of solution for the generalized Boussinesq equation with damping term**  
Polat N., KAYA D.

Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, cilt.61, sa.5-6, ss.235-238, 2006 (SCI-Expanded)

- XXX. **A numerical implementation of the decomposition method for the Lienard equation**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, cilt.171, sa.2, ss.1095-1103, 2005 (SCI-Expanded)
- XXXI. **Parallel algorithms for reduction of a symmetric matrix to tridiagonal form on a shared memory multiprocessor**  
KAYA D.  
Applied Mathematics and Computation, cilt.169, sa.2, ss.1045-1062, 2005 (SCI-Expanded)
- XXXII. **An application for a modified KdV equation by the decomposition method and finite element method**  
Geyikli T., KAYA D.  
Applied Mathematics and Computation, cilt.169, sa.2, ss.971-981, 2005 (SCI-Expanded)
- XXXIII. **Comparison of the solutions obtained by B-spline FEM and ADM of KdV equation**  
Geyikli T., KAYA D.  
Applied Mathematics and Computation, cilt.169, sa.1, ss.146-156, 2005 (SCI-Expanded)
- XXXIV. **A numerical application of the decomposition method for the combined KdV-MKdV equation**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, cilt.168, sa.2, ss.915-926, 2005 (SCI-Expanded)
- XXXV. **Exact and numerical traveling wave solutions of Whitham-Broer-Kaup equations**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.167, sa.2, ss.1339-1349, 2005 (SCI-Expanded)
- XXXVI. **An implementation of the ADM for generalized one-dimensional Klein-Gordon equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.166, sa.2, ss.426-433, 2005 (SCI-Expanded)
- XXXVII. **On experimental results and explicit exact solutions for the generalized Boussinesq type equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.165, sa.2, ss.303-311, 2005 (SCI-Expanded)
- XXXVIII. **Parallel algorithms for reduction of a general matrix to upper Hessenberg form on a shared memory multiprocessor**  
KAYA D., Wright K.  
Applied Mathematics and Computation, cilt.165, sa.1, ss.195-212, 2005 (SCI-Expanded)
- XXXIX. **A decomposition method for finding solitary and periodic solutions for a coupled higher-dimensional Burgers equations**  
KAYA D., Yokus A.  
Applied Mathematics and Computation, cilt.164, sa.3, ss.857-864, 2005 (SCI-Expanded)
- XL. **Parallel algorithms for LU decomposition on a shared memory multiprocessor**  
KAYA D., Wright K.  
Applied Mathematics and Computation, cilt.163, sa.1, ss.179-191, 2005 (SCI-Expanded)
- XLI. **The symmetric tridiagonal eigenproblem on a shared memory multiprocessor: Part II**  
KAYA D.  
Applied Mathematics and Computation, cilt.163, sa.1, ss.213-244, 2005 (SCI-Expanded)
- XLII. **An experience using different synchronisation mechanisms on a shared memory multiprocessors**  
KAYA D.  
Applied Mathematics and Computation, cilt.161, sa.3, ss.1027-1036, 2005 (SCI-Expanded)
- XLIII. **A convergence analysis of the ADM and an application**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, cilt.161, sa.3, ss.1015-1025, 2005 (SCI-Expanded)
- XLIV. **Blow-up of solutions for the damped Boussinesq equation**  
Polat N., KAYA D., Tutalar H. I.  
Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, cilt.60, sa.7, ss.473-476, 2005 (SCI-Expanded)

- XLV. **An application of the modified decomposition method for two dimensional sine-Gordon equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.159, sa.1, ss.1-9, 2004 (SCI-Expanded)
- XLVI. **An application of the decomposition method for the two-dimensional KdV-Burgers equation**  
KAYA D.  
Computers and Mathematics with Applications, cilt.48, sa.10-11, ss.1659-1665, 2004 (SCI-Expanded)
- XLVII. **On the numerical solution of the system of two-dimensional Burgers' equations by the decomposition method**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.158, sa.1, ss.101-109, 2004 (SCI-Expanded)
- XLVIII. **Numerical comparison of methods for solving parabolic equations**  
Al-Khaled K., KAYA D., Noor M. A.  
Applied Mathematics and Computation, cilt.157, sa.3, ss.735-743, 2004 (SCI-Expanded)
- XLIX. **The decomposition method for solving (2 + 1)-dimensional Boussinesq equation and (3 + 1)-dimensional KP equation**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.157, sa.2, ss.523-534, 2004 (SCI-Expanded)
- L. **An application of the ADM to seven-order Sawada-Kotara equations**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.157, sa.1, ss.93-101, 2004 (SCI-Expanded)
- LI. **A numerical solution of the Klein-Gordon equation and convergence of the decomposition method**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, cilt.156, sa.2, ss.341-353, 2004 (SCI-Expanded)
- LII. **A reliable method for the numerical solution of the kinetics problems**  
KAYA D.  
Applied Mathematics and Computation, cilt.156, sa.1, ss.261-270, 2004 (SCI-Expanded)
- LIII. **The symmetric tridigonal eigenproblem on a shared memory multiprocessor: Part I**  
KAYA D.  
Applied Mathematics and Computation, cilt.156, sa.1, ss.189-209, 2004 (SCI-Expanded)
- LIV. **Adomian's decomposition method applied to systems of nonlinear algebraic equations**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, cilt.154, sa.2, ss.487-493, 2004 (SCI-Expanded)
- LV. **Series solution to the Pochhammer-Chree equation and comparison with exact solutions**  
Shawagfeh N., KAYA D.  
Computers and Mathematics with Applications, cilt.47, sa.12, ss.1915-1920, 2004 (SCI-Expanded)
- LVI. **Finite difference method for solving fourth-order obstacle problems**  
Al-SAID E. A., Noor M. A., KAYA D., Al-Khaled K.  
International Journal of Computer Mathematics, cilt.81, sa.6, ss.741-748, 2004 (SCI-Expanded)
- LVII. **Solitary-wave solutions for compound KdV-type and compound KdV-Burgers-type equations with nonlinear terms of any order**  
KAYA D.  
Applied Mathematics and Computation, cilt.152, sa.3, ss.709-720, 2004 (SCI-Expanded)
- LVIII. **A numerical simulation and explicit solutions of the generalized Burgers-Fisher equation**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, cilt.152, sa.2, ss.403-413, 2004 (SCI-Expanded)
- LIX. **Exact and numerical soliton solutions of some nonlinear physical models**  
KAYA D.  
Applied Mathematics and Computation, cilt.152, sa.2, ss.551-560, 2004 (SCI-Expanded)
- LX. **An application of the decomposition method for the KdVB equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.152, sa.1, ss.279-288, 2004 (SCI-Expanded)

- LXI. **Exact and numerical traveling wave solutions for nonlinear coupled equations using symbolic computation**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, cilt.151, sa.3, ss.775-787, 2004 (SCI-Expanded)
- LXII. **Comparing numerical methods for Helmholtz equation model problem**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, cilt.150, sa.3, ss.763-773, 2004 (SCI-Expanded)
- LXIII. **A numerical simulation of solitary-wave solutions of the generalized regularized long-wave equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.149, sa.3, ss.833-841, 2004 (SCI-Expanded)
- LXIV. **Solitary wave solutions for a generalized Hirota-Satsuma coupled KdV equation**  
KAYA D.  
Applied Mathematics and Computation, cilt.147, sa.1, ss.69-78, 2004 (SCI-Expanded)
- LXV. **Comparing numerical methods for the solutions of systems of ordinary differential equations**  
Shawagfeh N., KAYA D.  
Applied Mathematics Letters, cilt.17, sa.3, ss.323-328, 2004 (SCI-Expanded)
- LXVI. **The decomposition method applied to solve high-order linear Volterra-Fredholm integro-differential equations**  
El-Sayed S. M., KAYA D., Zarea S.  
International Journal of Nonlinear Sciences and Numerical Simulation, cilt.5, sa.2, ss.105-112, 2004 (SCI-Expanded)
- LXVII. **Numerical soliton-like solutions of the potential Kadomtsev-Petviashvili equation by the decomposition method**  
KAYA D., El-Sayed S. M.  
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- LXVIII. **A numerical method for solving Jaulent-Miodek equation**  
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## **Metrikler**

Yayın: 111

Atıf (Scopus): 2446

H-İndeks (Scopus): 31