

## Prof. DOĞAN KAYA

### Personal Information

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### International Researcher IDs

ScholarID: CGc6eqwAAAAJ

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

ScopusID: 7004487747

Yoksis Researcher ID: 4284

### Education Information

Doctorate, University of Newcastle Upon Tyne, SCIENCE INSTITUTE, DEPARTMENT OF COMPUTER SCIENCES, England  
1992 - 1995

Postgraduate, Firat University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 1988 - 1990

Undergraduate, Van Yüzüncü Yil University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 1984 - 1988

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Parallel Algorithms for Linear Algebra on a Shared Memory Multiprocessor, University of Newcastle Upon Tyne, Computing Laboratory, DEPARTMENT OF COMPUTING SCIENCE , 1995

Postgraduate, Lineer olmayan differensiyel denklemler, Firat University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 1990

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Professor, Istanbul Commerce University, İnsan ve Toplum Bilimleri Fakültesi, Matematik Bölümü, 2011 - Continues

Professor, Firat University, Fen Fakültesi, Matematik Bölümü, 2006 - 2011

Associate Professor, Firat University, Fen Fakültesi, Matematik Bölümü, 2000 - 2006

Assistant Professor, Firat University, Fen Fakültesi, Matematik Bölümü, 1995 - 2000

Research Assistant, University of Newcastle Upon Tyne, SCIENCE, DEPARTMENT OF COMPUTING SCIENCE, 1991 - 1995

## Academic and Administrative Experience

Head of Department, Istanbul Commerce University, İnsan Ve Toplum Bilimleri Fakültesi, Matematik Bölümü, 2022 - Continues

Director of The Institution, Istanbul Commerce University, Fen Bilimleri Enstitüsü, 2022 - 2024

Director of The Institution, Istanbul Commerce University, Fen Bilimleri Enstitüsü, 2014 - 2017

Head of Department, Istanbul Commerce University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2011 - 2014

Vice Rector, Ardahan University, 2008 - 2010

Dean, Ardahan University, Mühendislik Fakültesi, 2008 - 2010

Deputy Head of Department, Firat University, Fen Fakültesi, Matematik Bölümü, 2002 - 2005

## Courses

BİTİRME PROJESİ, Undergraduate, 2023 - 2024

Differential Equations 2, Undergraduate, 2023 - 2024

Business Mathematics 2, Undergraduate, 2023 - 2024

Artificial neural networks, Undergraduate, 2023 - 2024

Computer Programming 2, Undergraduate, 2023 - 2024

Differential Equations 1, Undergraduate, 2023 - 2024, 2022 - 2023

Nümerik Analiz 1, Undergraduate, 2023 - 2024

Kariyer Planlama, Undergraduate, 2023 - 2024

Computer Programming I, Undergraduate, 2023 - 2024

Business Mathematics 1, Undergraduate, 2023 - 2024

Diferansiyel Denklemler I ve II, Undergraduate, 2022 - 2023, 2012 - 2013, 2011 - 2012

KISMİ DİFERANSİYEL DENKLEMLER, Undergraduate, 2021 - 2022

Lineer Cebir 1 ve 2, Undergraduate, 2021 - 2022

Mathematics 1 and 2, Undergraduate, 2021 - 2022

Matematik 1 ve 2, Undergraduate, 2021 - 2022

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

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

Mühendislik Matematiği I ve II, Undergraduate, 2020 - 2021

Lineer Cebir 1, Undergraduate, 2019 - 2020

Random Process, Postgraduate, 2017 - 2018

Rastgele Süreç, Undergraduate, 2017 - 2018

ENGINEERING MATHEMATICS II, Undergraduate, 2016 - 2017

ENGINEERING MATHEMATICS I, Undergraduate, 2016 - 2017

MATHEMATICS II, Undergraduate, 2016 - 2017

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

Mathematical Analysis I, Undergraduate, 2016 - 2017

Mathematical Analysis II, Undergraduate, 2016 - 2017

Mühendislikte Sonlu Elemanlar Yöntemi, Doctorate, 2016 - 2017

SEMINAR , Postgraduate, 2016 - 2017

MATHEMATICS I, Undergraduate, 2016 - 2017

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

Differential Equation , Undergraduate, 2012 - 2013

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

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

## Advising Theses

DOĞAN K., Başlangıç ve sınır koşullarına sahip bazı lineer olmayan kısmi diferansiyel denklemler için simetri analizi, Doctorate, G.İSKENDERÖĞLU(Student), 2020

DOĞAN K., İntegrallenebilir denklemler için soliton çözümler ve uygulamaları, Postgraduate, B.KUTLU(Student), 2015

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

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

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

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

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

DOĞAN K., Diferansiyel denklemlerin çözümlerinin asimptotik davranışı ve kararlılığı, Postgraduate, S.DURAN(Student), 2006

DOĞAN K., Difüzyon denklemlerin çözümlerinin patlaması, Postgraduate, Y.UĞURLU(Student), 2005

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

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

DOĞAN K., Kısmi diferansiyel denklemlerin çözümlerinin azalması ve kararlılığı, Postgraduate, T.BAKİ(Student), 2003

DOĞAN K., Başlangıç ve sınır değer problemlerinin seriler yardımı ile çözümleri, Postgraduate, S.ÇİÇEK(Student), 2002

DOĞAN K., Burgers denkleminin sayısal çözümlerinin karşılaştırılması üzerine bir çalışma, Postgraduate, A.YOKUŞ(Student), 2002

DOĞAN K., Lineer cebirsel denklem sistemlerinin sayısal çözümleri ve bu çözümlerin sayısal irdelenmesi, Postgraduate, İ.ENAM(Student), 1999

DOĞAN K., Kısmi diferansiyel denklemlerin analitik çözümleri ve sayısal çözümlerinin karşılaştırılması, Postgraduate, T.TUTAK(Student), 1999

## Jury Memberships

Associate Professor Exam, Associate Professor Exam, May, 2024

Appointment to Academic Staff-Assistant Professorship, Appointment to Academic Staff-Assistant Professorship, Yıldız Teknik Üniversitesi, January, 2024

Associate Professor Exam, Associate Professor Exam, Eskişehir Osmangazi Üniversitesi, December, 2023

Associate Professor Exam, Associate Professor Exam, GAZİANTEP ÜNİVERSİTESİ, October, 2023

Associate Professor Exam, Associate Professor Exam, BAHÇESEHIR ÜNİVERSİTESİ, October, 2023

## Published journal articles indexed by SCI, SSCI, and AHCI

1. 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, vol.178, 2024 (SCI-Expanded)

- II. **Application of some nonclassical methods for p-defocusing complex Klein–Gordon equation**  
Yokus A., İSKENDEROĞLU G., KAYA D.  
Optical and Quantum Electronics, vol.55, no.5, 2023 (SCI-Expanded)
- III. **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, vol.162, 2022 (SCI-Expanded)
- IV. **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, vol.35, no.26, 2021 (SCI-Expanded)
- V. **Breaking analysis of solitary waves for the shallow water wave system in fluid dynamics**  
Duran S., KAYA D.  
European Physical Journal Plus, vol.136, no.9, 2021 (SCI-Expanded)
- VI. **Comparison exact and numerical simulation of the traveling wave solution in nonlinear dynamics**  
Yokus A., KAYA D.  
International Journal of Modern Physics B, vol.34, no.29, 2020 (SCI-Expanded)
- VII. **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, vol.135, no.8, 2020 (SCI-Expanded)
- VIII. **Symmetry analysis of initial and boundary value problems for fractional differential equations in Caputo sense**  
İSKENDEROĞLU G., KAYA D.  
Chaos, Solitons and Fractals, vol.134, 2020 (SCI-Expanded)
- IX. **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, vol.43, no.3, pp.1263-1275, 2019 (SCI-Expanded)
- X. **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, vol.2018, no.1, 2018 (SCI-Expanded)
- XI. **Numerical solutions of the Fractional Kdv-Burgers-Kuramoto equation**  
KAYA D., Gulbahar S., Yokus A.  
Thermal Science, vol.22, 2018 (SCI-Expanded)
- XII. **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, vol.61, no.5, pp.1278-1290, 2011 (SCI-Expanded)
- XIII. **Reply to Comment on 'Exact solutions to the various nonlinear evolution equations'**  
KAYA D., Inan I. E.  
Physica Scripta, vol.83, no.1, 2011 (SCI-Expanded)
- XIV. **Auto-Bäcklund transformation and similarity reductions for coupled Burger's equation**  
Inan I. E., KAYA D., Ugurlu Y.  
Applied Mathematics and Computation, vol.216, no.9, pp.2507-2511, 2010 (SCI-Expanded)
- XV. **Exact solutions to the various nonlinear evolution equations**  
KAYA D., Inan I. E.  
Physica Scripta, vol.79, no.4, 2009 (SCI-Expanded)
- XVI. **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, vol.64, no.1-2, pp.1-7, 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, vol.64, no.5-6, pp.315-326, 2009 (SCI-Expanded)
- XVIII. **Solutions of the Cahn-Hilliard equation**  
Ugurlu Y., KAYA D.  
Computers and Mathematics with Applications, vol.56, no.12, pp.3038-3045, 2008 (SCI-Expanded)
- XIX. **Exact and numerical solutions of generalized Drinfeld-Sokolov equations**  
Ugurlu Y., KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.372, no.16, pp.2867-2873, 2008 (SCI-Expanded)
- XX. **Analytic method for solitary solutions of some partial differential equations**  
Uğurlu Y., KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.370, no.3-4, pp.251-259, 2007 (SCI-Expanded)
- XXI. **Exact solutions of some nonlinear partial differential equations**  
Inan I. E., KAYA D.  
Physica A: Statistical Mechanics and its Applications, vol.381, no.1-2, pp.104-115, 2007 (SCI-Expanded)
- XXII. **A numerical comparison of a Kawahara equation**  
KAYA D., Al-Khaled K.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.363, no.5-6, pp.433-439, 2007 (SCI-Expanded)
- XXIII. **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, vol.181, no.1, pp.193-199, 2006 (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, vol.179, no.2, pp.466-472, 2006 (SCI-Expanded)
- XXV. **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, vol.355, no.4-5, pp.314-318, 2006 (SCI-Expanded)
- XXVI. **A numerical solution and an exact explicit solution of the NLS equation**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, vol.172, no.2 SPEC. ISS., pp.1315-1322, 2006 (SCI-Expanded)
- XXVII. **The exact and numerical solitary-wave solutions for generalized modified Boussinesq equation**  
KAYA D.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.348, no.3-6, pp.244-250, 2006 (SCI-Expanded)
- XXVIII. **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, vol.61, no.5-6, pp.235-238, 2006 (SCI-Expanded)
- XXIX. **A numerical implementation of the decomposition method for the Lienard equation**  
KAYA D., El-Sayed S. M.

- Applied Mathematics and Computation, vol.171, no.2, pp.1095-1103, 2005 (SCI-Expanded)
- XXX. **Parallel algorithms for reduction of a symmetric matrix to tridiagonal form on a shared memory multiprocessor**  
KAYA D.  
Applied Mathematics and Computation, vol.169, no.2, pp.1045-1062, 2005 (SCI-Expanded)
- XXXI. **An application for a modified KdV equation by the decomposition method and finite element method**  
Geyikli T., KAYA D.  
Applied Mathematics and Computation, vol.169, no.2, pp.971-981, 2005 (SCI-Expanded)
- XXXII. **Comparison of the solutions obtained by B-spline FEM and ADM of KdV equation**  
Geyikli T., KAYA D.  
Applied Mathematics and Computation, vol.169, no.1, pp.146-156, 2005 (SCI-Expanded)
- XXXIII. **A numerical application of the decomposition method for the combined KdV-MKdV equation**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, vol.168, no.2, pp.915-926, 2005 (SCI-Expanded)
- XXXIV. **Exact and numerical traveling wave solutions of Whitham-Broer-Kaup equations**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, vol.167, no.2, pp.1339-1349, 2005 (SCI-Expanded)
- XXXV. **An implementation of the ADM for generalized one-dimensional Klein-Gordon equation**  
KAYA D.  
Applied Mathematics and Computation, vol.166, no.2, pp.426-433, 2005 (SCI-Expanded)
- XXXVI. **On experimental results and explicit exact solutions for the generalized Boussinesq type equation**  
KAYA D.  
Applied Mathematics and Computation, vol.165, no.2, pp.303-311, 2005 (SCI-Expanded)
- XXXVII. **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, vol.165, no.1, pp.195-212, 2005 (SCI-Expanded)
- XXXVIII. **A decomposition method for finding solitary and periodic solutions for a coupled higher-dimensional Burgers equations**  
KAYA D., Yokus A.  
Applied Mathematics and Computation, vol.164, no.3, pp.857-864, 2005 (SCI-Expanded)
- XXXIX. **The symmetric tridiagonal eigenproblem on a shared memory multiprocessor: Part II**  
KAYA D.  
Applied Mathematics and Computation, vol.163, no.1, pp.213-244, 2005 (SCI-Expanded)
- XL. **Parallel algorithms for LU decomposition on a shared memory multiprocessor**  
KAYA D., Wright K.  
Applied Mathematics and Computation, vol.163, no.1, pp.179-191, 2005 (SCI-Expanded)
- XLI. **An experience using different synchronisation mechanisms on a shared memory multiprocessors**  
KAYA D.  
Applied Mathematics and Computation, vol.161, no.3, pp.1027-1036, 2005 (SCI-Expanded)
- XLII. **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, vol.60, no.7, pp.473-476, 2005 (SCI-Expanded)
- XLIII. **A convergence analysis of the ADM and an application**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, vol.161, no.3, pp.1015-1025, 2005 (SCI-Expanded)
- XLIV. **An application of the modified decomposition method for two dimensional sine-Gordon equation**  
KAYA D.  
Applied Mathematics and Computation, vol.159, no.1, pp.1-9, 2004 (SCI-Expanded)
- XLV. **An application of the decomposition method for the two-dimensional KdV-Burgers equation**

- KAYA D.  
Computers and Mathematics with Applications, vol.48, no.10-11, pp.1659-1665, 2004 (SCI-Expanded)
- XLVI. **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, vol.158, no.1, pp.101-109, 2004 (SCI-Expanded)
- XLVII. **Numerical comparison of methods for solving parabolic equations**  
Al-Khaled K., KAYA D., Noor M. A.  
Applied Mathematics and Computation, vol.157, no.3, pp.735-743, 2004 (SCI-Expanded)
- XLVIII. **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, vol.157, no.2, pp.523-534, 2004 (SCI-Expanded)
- XLIX. **An application of the ADM to seven-order Sawada-Kotara equations**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, vol.157, no.1, pp.93-101, 2004 (SCI-Expanded)
- L. **A numerical solution of the Klein-Gordon equation and convergence of the decomposition method**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, vol.156, no.2, pp.341-353, 2004 (SCI-Expanded)
- LI. **The symmetric tridigonal eigenproblem on a shared memory multiprocessor: Part I**  
KAYA D.  
Applied Mathematics and Computation, vol.156, no.1, pp.189-209, 2004 (SCI-Expanded)
- LII. **A reliable method for the numerical solution of the kinetics problems**  
KAYA D.  
Applied Mathematics and Computation, vol.156, no.1, pp.261-270, 2004 (SCI-Expanded)
- LIII. **Adomian's decomposition method applied to systems of nonlinear algebraic equations**  
KAYA D., El-Sayed S. M.  
Applied Mathematics and Computation, vol.154, no.2, pp.487-493, 2004 (SCI-Expanded)
- LIV. **Series solution to the Pochhammer-Chree equation and comparison with exact solutions**  
Shawagfeh N., KAYA D.  
Computers and Mathematics with Applications, vol.47, no.12, pp.1915-1920, 2004 (SCI-Expanded)
- LV. **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, vol.81, no.6, pp.741-748, 2004 (SCI-Expanded)
- LVI. **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, vol.152, no.3, pp.709-720, 2004 (SCI-Expanded)
- LVII. **Exact and numerical soliton solutions of some nonlinear physical models**  
KAYA D.  
Applied Mathematics and Computation, vol.152, no.2, pp.551-560, 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, vol.152, no.2, pp.403-413, 2004 (SCI-Expanded)
- LIX. **An application of the decomposition method for the KdVB equation**  
KAYA D.  
Applied Mathematics and Computation, vol.152, no.1, pp.279-288, 2004 (SCI-Expanded)
- LX. **Exact and numerical traveling wave solutions for nonlinear coupled equations using symbolic computation**  
KAYA D., Inan I. E.  
Applied Mathematics and Computation, vol.151, no.3, pp.775-787, 2004 (SCI-Expanded)

- LXI. **Comparing numerical methods for Helmholtz equation model problem**  
El-Sayed S. M., KAYA D.  
Applied Mathematics and Computation, vol.150, no.3, pp.763-773, 2004 (SCI-Expanded)
- LXII. **A numerical simulation of solitary-wave solutions of the generalized regularized long-wave equation**  
KAYA D.  
Applied Mathematics and Computation, vol.149, no.3, pp.833-841, 2004 (SCI-Expanded)
- LXIII. **Solitary wave solutions for a generalized Hirota-Satsuma coupled KdV equation**  
KAYA D.  
Applied Mathematics and Computation, vol.147, no.1, pp.69-78, 2004 (SCI-Expanded)
- LXIV. **Comparing numerical methods for the solutions of systems of ordinary differential equations**  
Shawagfeh N., KAYA D.  
Applied Mathematics Letters, vol.17, no.3, pp.323-328, 2004 (SCI-Expanded)
- LXV. **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, vol.5, no.2, pp.105-112, 2004 (SCI-Expanded)
- LXVI. **Numerical soliton-like solutions of the potential Kadomtsev-Petviashvili equation by the decomposition method**  
KAYA D., El-Sayed S. M.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.320, no.2-3, pp.192-199, 2003 (SCI-Expanded)
- LXVII. **A numerical method for solving Jaulent-Miodek equation**  
KAYA D., El-Sayed S. M.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.318, no.4-5, pp.345-353, 2003 (SCI-Expanded)
- LXVIII. **A numerical solution of the sine-Gordon equation using the modified decomposition method**  
KAYA D.  
Applied Mathematics and Computation, vol.143, no.2-3, pp.309-317, 2003 (SCI-Expanded)
- LXIX. **An explicit and numerical solutions of some fifth-order KdV equation by decomposition method**  
KAYA D.  
Applied Mathematics and Computation, vol.144, no.2-3, pp.353-363, 2003 (SCI-Expanded)
- LXX. **On the solution of the coupled Schrödinger-KdV equation by the decomposition method**  
KAYA D., El-Sayed S. M.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.313, no.1-2, pp.82-88, 2003 (SCI-Expanded)
- LXXI. **On a generalized fifth order KdV equations**  
KAYA D., El-Sayed S. M.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.310, no.1, pp.44-51, 2003 (SCI-Expanded)
- LXXII. **An application of the decomposition method for the generalized KdV and RLW equations**  
KAYA D., El-Sayed S. M.  
Chaos, Solitons and Fractals, vol.17, no.5, pp.869-877, 2003 (SCI-Expanded)
- LXXIII. **A numerical comparison of partial solutions in the decomposition method for linear and nonlinear partial differential equations**  
KAYA D., Yokus A.  
Mathematics and Computers in Simulation, vol.60, no.6, pp.507-512, 2002 (SCI-Expanded)
- LXXIV. **An application for a generalized KdV equation by the decomposition method**  
KAYA D., Aassila M.  
Physics Letters, Section A: General, Atomic and Solid State Physics, vol.299, no.2-3, pp.201-206, 2002 (SCI-Expanded)
- LXXV. **The use of Adomian decomposition method for solving a specific nonlinear partial differential equations**

- KAYA D.  
Bulletin of the Belgian Mathematical Society - Simon Stevin, vol.9, no.3, pp.343-349, 2002 (SCI-Expanded)
- LXXVI. **Application of the decomposition method for second order wave equations**  
KAYA D.  
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- IV. **Symmetry Analysis and Conservation Laws of the Boundary Value Problems for Time-Fractional Generalized Burgers' Differential Equation**  
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