

## Prof. DURSUN IRK



### Personal Information

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### Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik (Dr), Turkey 2002 - 2007

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik (YI) (Tezli), Turkey 2000 - 2002

Undergraduate, Eskisehir Osmangazi University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 1996 - 2000

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Bazı kısmi türevli diferensiyel denklem sistemlerinin B-spline sonlu elemanlar çözümleri, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, 2007

Postgraduate, Kübik spline fonksiyonlar yardımıyla bazı kısmi türevli diferensiyel denklemlerin sayısal çözümleri, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, 2002

### Research Areas

Differential Equations, Partial Differential Equations

### Academic Titles / Tasks

Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2019 - Continues

Associate Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2014 - 2019

Assistant Professor, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2009 - 2014

Research Assistant, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2000 - 2009

## Academic and Administrative Experience

Director of Vocational School, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2023 - Continues

Head of Department, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2020 - Continues

Vice Dean, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2018 - 2023

Member of the Senate, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2020 - 2022

Fakülte Yönetim Kurulu Üyesi, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2018 - 2019

Fakülte Kurulu Üyesi, Eskisehir Osmangazi University, FEN FAKÜLTESİ, MATEMATİK VE BİLGİSAYAR BİLİMLERİ BÖLÜMÜ, 2016 - 2019

## Advising Theses

Irk D., Ginzburg–Landau Denkleminin Yaklaşık Çözümleri, Postgraduate, D.ÇOĞAL(Student), 2020

Irk D., Generalized Regularized Long Wave (GRLW) Denkleminin B-spline Galerkin Sonlu Elemanlar Yöntemiyle Sayısal Çözümleri, Postgraduate, G.GÖKCEN(Student), 2020

Irk D., Burgers Denkleminin B-spline Galerkin Sonlu Elemanlar Yöntemiyle Sayısal Çözümleri, Postgraduate, M.ÇOLAK(Student), 2020

Irk D., Zamana Göre İkinci Merteben Bazı Kısmı Diferensiyel Denklemler İçin Yüksek Doğruluklu Sayısal Yöntemler, Doctorate, E.KIRLI(Student), 2019

Irk D., Lineer olmayan Schrödinger denkleminin sayısal çözümleri için trigonometrik b-spline Galerkin yöntemleri, Doctorate, M.ALİ(Student), 2019

Irk D., Yüksek Dereceden B-spline Fonksiyonlarının Bazı Uygulamaları, Postgraduate, B.KOYULMUŞ(Student), 2019

Irk D., Kompleks Kısmi Diferensiyel Denklemlerin Zamana Göre Yüksek Doğruluklu B-spline Sonlu Elemanlar Çözümü, Doctorate, E.TOPCU(Student), 2019

Irk D., Burgers denkleminin yüksek doğruluklu sayısal çözümü, Postgraduate, H.AHMET(Student), 2018

Irk D., Adveksiyon Difüzyon Denklemi için B-spline Galerkin Metotları, Postgraduate, M.TURHAN(Student), 2018

Irk D., RLW denkleminin trigonometrik B-spline çözümleri, Doctorate, P.KESKİN(Student), 2016

Irk D., Özel bir q-deforme fermiyonik kuantum gaz modelinin matematiksel ve termo-istatistiksel özellikleri, Postgraduate, G.TOPÇU(Student), 2015

Irk D., Bazı kısmi diferensiyel denklemlerin sayısal çözümleri için kübik B-spline quasi interpolasyon metodu, Postgraduate, M.ALİ(Student), 2014

Irk D., RLW ve KdV denklemlerinin solitary dalga ve soliton çözümleri, Postgraduate, O.İDUĞ(Student), 2013

Irk D., Advection diffusion denkleminin genişletilmiş kübik B-spline sonlu elemanlar çözümleri, Postgraduate, S.DOĞAN(Student), 2013

Irk D., Solitary dalga çözümlerine sahip bazı KTD'lere sonlu farklar yöntemlerinin uygulanması, Postgraduate, P.KESKİN(Student), 2010

## July Memberships

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Eskişehir Osmangazi Üniversitesi, January, 2022

Associate Professor Exam, Associate Professor Exam, Eskişehir Osmangazi Üniversitesi, September, 2021

Appointment to Academic Staff-Professorship, Appointment Academic Staff, Eskişehir Osmangazi Üniversitesi, August, 2021

Associate Professor Exam, Associate Professor Exam, Eskişehir Osmangazi Üniversitesi, January, 2021

Associate Professor Exam, Associate Professor Exam, Eskişehir Osmangazi Üniversitesi, March, 2020

Associate Professor Exam, Associate Professor Exam, Eskişehir Osmangazi Üniversitesi, October, 2019

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

- I. **Efficient techniques for numerical solutions of Fisher's equation using B-spline finite element methods**  
Kırlı E., İRK D.  
Computational and Applied Mathematics, vol.42, no.4, 2023 (SCI-Expanded)
- II. **High order accurate method for the numerical solution of the second order linear hyperbolic telegraph equation**  
Kırlı E., İRK D., ZORŞAHİN GÖRGÜLÜ M.  
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.39, no.3, pp.2060-2072, 2023 (SCI-Expanded)
- III. **A High Order Accurate Numerical Solution of the Klein-Gordon Equation**  
İRK D., Kırlı E., ZORŞAHİN GÖRGÜLÜ M.  
Applied Mathematics and Information Sciences, vol.16, no.2, pp.331-339, 2022 (SCI-Expanded)
- IV. **GALERKIN METHODS FOR THE NUMERICAL SOLUTION OF THE SCHRÖDINGER EQUATION BY USING TRIGONOMETRIC B-SPLINES**  
Mersin M., İRK D., ZORŞAHİN GÖRGÜLÜ M.  
Miskolc Mathematical Notes, vol.23, no.1, pp.363-380, 2022 (SCI-Expanded)
- V. **A fourth order one step method for numerical solution of good Boussinesq equation**  
Kırlı E., İRK D.  
Turkish Journal of Mathematics, vol.45, no.5, pp.2154-2170, 2021 (SCI-Expanded)
- VI. **Quartic trigonometric B-spline algorithm for numerical solution of the regularized long wave equation**  
İRK D., Keskin Yıldız P., ZORŞAHİN GÖRGÜLÜ M.  
TURKISH JOURNAL OF MATHEMATICS, vol.43, no.1, pp.112-125, 2019 (SCI-Expanded)
- VII. **Simulations of solitary waves of RLW equation by exponential B-spline Galerkin method**  
ZORŞAHİN GÖRGÜLÜ M., Dag İ., İRK D.  
CHINESE PHYSICS B, vol.26, no.8, 2017 (SCI-Expanded)
- VIII. **QUADRATIC TRIGONOMETRIC B-SPLINE GALERKIN METHODS FOR THE REGULARIZED LONG WAVE EQUATION**  
İRK D., Keskin P.  
JOURNAL OF APPLIED ANALYSIS AND COMPUTATION, vol.7, no.2, pp.617-631, 2017 (SCI-Expanded)
- IX. **TRIGONOMETRIC B-SPLINE COLLOCATION ALGORITHM FOR SOLVING THE RLW EQUATION**  
Dag İ., İRK D., Kacmaz O., Adar N.  
APPLIED AND COMPUTATIONAL MATHEMATICS, vol.15, no.1, pp.96-105, 2016 (SCI-Expanded)
- X. **Anyonic behavior of an intermediate-statistics fermion gas model**  
Algin A., İRK D., Topcu G.  
PHYSICAL REVIEW E, vol.91, no.6, 2015 (SCI-Expanded)
- XI. **Extended cubic B-spline solution of the advection-diffusion equation**  
İRK D., Dag İ., TOMBUL M.  
KSCE JOURNAL OF CIVIL ENGINEERING, vol.19, no.4, pp.929-934, 2015 (SCI-Expanded)

- XII. **The extended cubic B-spline algorithm for a modified regularized long wave equation**  
Dag İ., Irk D., Sari M.  
CHINESE PHYSICS B, vol.22, no.4, 2013 (SCI-Expanded)
- XIII. **Solitary wave solutions for the regularized long-wave equation**  
Irk D.  
Physics of Wave Phenomena, vol.20, no.3, pp.174-183, 2012 (SCI-Expanded)
- XIV. **B-spline Galerkin solutions for the equal width equation**  
Irk D.  
Physics of Wave Phenomena, vol.20, no.2, pp.122-130, 2012 (SCI-Expanded)
- XV. **Taylor collocation method for the numerical solution of the nonlinear Schrodinger equation using quintic B-spline basis**  
Aksoy A. M., Irk D., Dag İ.  
PHYSICS OF WAVE PHENOMENA, vol.20, no.1, pp.67-79, 2012 (SCI-Expanded)
- XVI. **Quintic B-spline collocation method for the generalized nonlinear Schrodinger equation**  
IRK D., Dag İ.  
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.348, no.2, pp.378-392, 2011 (SCI-Expanded)
- XVII. **Numerical Simulations of the Improved Boussinesq Equation**  
IRK D., Dag İ.  
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.26, no.6, pp.1316-1327, 2010 (SCI-Expanded)
- XVIII. **Soliton solutions for NLS equation using radial basis functions**  
DERELİ Y., IRK D., Dag İ.  
CHAOS SOLITONS & FRACTALS, vol.42, no.2, pp.1227-1233, 2009 (SCI-Expanded)
- XIX. **Sextic B-spline collocation method for the modified Burgers' equation**  
Irk D.  
Kybernetes, vol.38, no.9, pp.1599-1620, 2009 (SCI-Expanded)
- XX. **Solitary wave solutions of the CMKdV equation by using the quintic B-spline collocation method**  
IRK D., Dag İ.  
PHYSICA SCRIPTA, vol.77, no.6, 2008 (SCI-Expanded)
- XXI. **Quintic B-spline collocation method for numerical solution of the RLW equation**  
Saka B., Dag İ., IRK D.  
ANZIAM JOURNAL, vol.49, no.3, pp.389-410, 2008 (SCI-Expanded)
- XXII. **Galerkin method for the numerical solution of the RLW equation using quintic B-splines**  
Dag İ., Saka B., Irk D.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.190, pp.532-547, 2006 (SCI-Expanded)
- XXIII. **Least-squares finite element method for the advection-diffusion equation**  
Dag İ., Irk D., Tombul M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.173, no.1, pp.554-565, 2006 (SCI-Expanded)
- XXIV. **A small time solutions for the Korteweg-de Vries equation using spline approximation**  
Irk D., Dag İ., Saka B.  
APPLIED MATHEMATICS AND COMPUTATION, vol.173, no.2, pp.834-846, 2006 (SCI-Expanded)
- XXV. **Numerical integration of the RLW equation using cubic splines**  
Irk D., Dag W., Dogan A.  
ANZIAM JOURNAL, vol.47, pp.131-142, 2005 (SCI-Expanded)
- XXVI. **A numerical solution of the Burgers' equation using cubic B-splines**  
Dag İ., Irk D., Saka B.  
APPLIED MATHEMATICS AND COMPUTATION, vol.163, no.1, pp.199-211, 2005 (SCI-Expanded)
- XXVII. **B-spline collocation methods for numerical solutions of the Burgers' equation**  
Dag İ., Irk D., Sahin A.  
MATHEMATICAL PROBLEMS IN ENGINEERING, no.5, pp.521-538, 2005 (SCI-Expanded)

**XXVIII. Application of cubic B-splines for numerical solution of the RLW equation**

Dag İ., Saka B., Irk D.

APPLIED MATHEMATICS AND COMPUTATION, vol.159, no.2, pp.373-389, 2004 (SCI-Expanded)

**Articles Published in Other Journals**

- I. **NUMERICAL SOLUTION OF SECOND ORDER LINEAR HYPERBOLIC TELEGRAPH EQUATION**  
Kirli E., Irk D., Gorgulu M. Z.  
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.12, no.3, pp.919-930, 2022 (ESCI)
- II. **HIGH ORDER CUBIC B-SPLINE GALERKIN METHOD FORADVECTION EQUATION**  
Topcu E., IRK D.  
International Journal Natural and Engineering Sciences, 2020 (Peer-Reviewed Journal)
- III. **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)
- IV. **Numerical Solution of the Homogeneous Telegraph Equation by Using Galerkin Finite Element Method**  
IRK D., KIRLI E.  
Advance in intelligent Systems and Computing, 2020 (Scopus)
- V. **Numerical solution of modified regularized long wave equation by using cubic trigonometric B-spline functions**  
ZORŞAHİN GÖRGÜLÜ M., IRK D.  
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, no.1, pp.126-138, 2019 (Peer-Reviewed Journal)
- VI. **THE GALERKIN FINITE ELEMENT METHOD FOR ADVECTION DIFFUSION EQUATION**  
ZORŞAHİN GÖRGÜLÜ M., IRK D.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.37, no.1, pp.119-128, 2019 (ESCI)
- VII. **Cubic B-Spline Quasi-Interpolation Method For Regularized Long Wave Equation**  
IRK D., MERSİN M. A.  
Journal of Engineering Technology and Applied Sciences, pp.171-185, 2018 (Peer-Reviewed Journal)
- VIII. **Higher Order Accurate Numerical Solution of Advection Diffusion Equation**  
ZORŞAHİN GÖRGÜLÜ M., IRK D.  
Konuralp Journal of Mathematics, vol.6, no.2, pp.253-258, 2018 (Peer-Reviewed Journal)
- IX. **A NUMERICAL SOLUTION OF THE ADVECTION-DIFFUSION EQUATION BY USING EXTENDED CUBIC B-SPLINE FUNCTIONS**  
ZORŞAHİN GÖRGÜLÜ M., DAĞ İ., DOĞAN S., IRK D.  
ANADOLU UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY A - Applied Sciences and Engineering, vol.19, no.2, pp.347-355, 2018 (Peer-Reviewed Journal)
- X. **Adveksiyon difüzyon denklemi için sektik B-spline Galerkin metodu**  
Topcu E., IRK D.  
Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, pp.105-116, 2018 (Peer-Reviewed Journal)
- XI. **Quintic B-spline Galerkin Method for the KdV Equation**  
IRK D.  
Anadolu Üniversitesi Bilim ve Teknoloji Dergisi -B Teorik Bilimler, vol.5, no.2, pp.111-119, 2017 (Peer-Reviewed Journal)
- XII. **Taylor Collocation Method for The Numerical Solution of The Nonlinear Schrödinger Equation Using Cubic B Spline Basis**  
AKSOY A. M., IRK D., DAĞ İ.  
International Journal of Nonlinear Science, vol.15, no.4, pp.322-333, 2013 (Peer-Reviewed Journal)

- XIII. **Numerical Solution of the MRLW Equation Using Finite Difference Method**  
KESKİN P., IRK D.  
International Journal of Nonlinear Science, vol.14, no.3, pp.355-361, 2012 (Peer-Reviewed Journal)
- XIV. **Numerical Solution of Mew Equation by Using Finite Difference Method**  
KESKİN P., IRK D.  
World Applied Sciences Journal, vol.12, no.2, pp.197-201, 2011 (Peer-Reviewed Journal)
- XV. **Numerical Solution of the Modified Burgers Equation by the Quintic B spline Galerkin Finite Element Method**  
SAKA B., DAĞ İ., IRK D.  
International Journal of Mathematics and Statistics, vol.1, pp.86-98, 2007 (Peer-Reviewed Journal)
- XVI. **Numerical Solutions of the modified Burgers Equation by the Quintic B spline Galerkin Finite Element Method**  
SAKA B., DAĞ İ., IRK D.  
International Journal of Mathematics and Statistics, vol.1, pp.86-97, 2007 (Peer-Reviewed Journal)
- XVII. **Simulation of EW wave generation via quadratic B spline finite element method**  
DAĞ İ., IRK D., BOZ A.  
International Journal of Mathematics and Statistics, vol.1, pp.46-59, 2007 (Peer-Reviewed Journal)
- XVIII. **Simulation of EW Wave Generation via Quadratic B spline Finite Element Method**  
DAĞ İ., IRK D., BOZ A.  
International Journal of Mathematics and Statistics, vol.1, pp.46-59, 2007 (Peer-Reviewed Journal)
- XIX. **Burger Denkleminin Sayısal Çözümleri İçin Sonlu Fark Metotları**  
SAKA B., IRK D.  
DPÜ Fen Bilimleri Enstitüsü Dergisi, vol.5, pp.87-96, 2003 (Peer-Reviewed Journal)
- XX. **A Numerical Study of the Equal Width Equation Hadronic Journal Supplement**  
SAKA B., IRK D., DAĞ İ.  
Hadronic Journal Supplement, vol.18, no.1, pp.99-115, 2003 (Peer-Reviewed Journal)
- XXI. **A numerical study of the equal width equation**  
SAKA B., IRK D., DAĞ İ.  
Hadronic Journal Supplement, vol.1, pp.99-115, 2003 (Peer-Reviewed Journal)
- XXII. **Cubic Spline Collocation Method for the Equal Width Equation**  
IRK D., SAKA B., DAĞ İ.  
Hadronic Journal Supplement, vol.18, pp.201-214, 2003 (Peer-Reviewed Journal)
- XXIII. **Numerical study of the equal width wave equation**  
SAKA B., IRK D., DAĞ İ.  
Hadronic Journal of Supplementary, vol.18, pp.99-116, 2003 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **Diferensiyel Denklemler**  
IRK 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., IRK 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., IRK D., KIRLI E.

Recent Advances in Mathematical and Engineering Sciences (International Mathematics Engineering Conference RAIMS-LVIV), 24 - 26 July 2019

- III. **AN EFFICIENT HIGH ORDER ALGORITHM FOR SOLVING REGULARIZED LONG WAVE EQUATION**  
IRK D., ZORŞAHİN GÖRGÜLÜ M.  
The Fourth International Conference on Computational Mathematics and Engineering Sciences (CMES-2019), 20 - 22 April 2019
- IV. **NUMERICAL SOLUTION OF THE HOMOGENEOUS TELEGRAPH EQUATION BY USING GALERKIN FINITE ELEMENT METHOD**  
IRK D., KIRLI E.  
THE FOURTH INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES (CMES-2019), 20 April 2019
- V. **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
- VI. **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
- VII. **High Order Galerkin Method for the Advection Diffusion Equation**  
Topcu E., IRK D.  
International Conference on Applied Mathematics in Engineering (ICAME), 27 - 29 June 2018
- VIII. **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
- IX. **Quartic Trigonometric B-spline Galerkin Method for the Equal Width Wave Equation**  
KESKİN P., IRK D.  
INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), 11 - 13 May 2018
- X. **High Order Methods for Advection Diffusion Equation**  
Topcu E., Turhan M., IRK D.  
INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), 11 - 13 May 2018
- XI. **Septic B-spline Galerkin Method for the Advection Diffusion Equation**  
Turhan M., Topcu E., IRK D.  
INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), 11 - 13 May 2018
- XII. **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
- XIII. **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
- XIV. **Galerkin Method for the Numerical Solution of the Modified Equal Width Wave (MEW) Equation**  
IRK D., MERSİN M. A.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017
- XV. **Trigonometric B-spline Galerkin Method for the Numerical Solution of the KdV Equation**  
MERSİN M. A., IRK D.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017

- XVI. **Multi Time Step Method for Numerical Solution of the Equal Width Wave Equation**  
MERSİN M. A., IRK D.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017
- XVII. **Numerical Solution of the Advection Diffusion Equation Using Trigonometric Cubic B-spline Galerkin Method**  
IRK D., MERSİN M. A.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017
- XVIII. **High Order Finite Difference Method for Burgers Equation**  
IRK D.  
International Conference on Applied Sciences, Engineering and Mathematics, Ohrid, Macedonia, 5 - 07 May 2017
- XIX. **Quartic B-spline Galerkin Method for the Advection Diffusion Equation**  
IRK D., Ay B., SAKA B.  
Mathematical Methods in Engineering, MME-2017, Ankara, Turkey, 27 - 29 April 2017
- XX. **Numerical Solution of Modified Regularized Long Wave Equation**  
IRK D., Keskin P.  
Mathematical Methods in Engineering, MME-2017, Ankara, Turkey, 27 - 29 April 2017
- XXI. **A Numerical Solution of the RLW Equation by Least Squares Method**  
SAKA B., Çayır Aydar A., IRK D.  
Mathematical Methods in Engineering, MME-2017, Ankara, Turkey, 27 - 29 April 2017
- XXII. **Solving Modified Equal Width Equation Using Cubic B-spline Quasi-Interpolation**  
MERSİN M. A., IRK D.  
Mathematical Methods in Engineering, MME-2017, Ankara, Turkey, 27 - 29 April 2017
- XXIII. **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
- XXIV. **Wave propagation 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
- XXV. **Numerical Solution of Modified Regularized Long Wave Equation by Cubic B spline Quasi Interpolation**  
MERSİN M. A., IRK D.  
International Conference on Quantum Science and Applications, 25 - 27 May 2016
- XXVI. **Galerkin method for the numerical solution of the KdV equation using quintic B splines**  
IRK D.  
International Conference on Quantum Science and Applications, Eskişehir, Turkey, 25 - 27 May 2016
- XXVII. **Some New Properties Concerning the Fermionic  $q$  Calculus Through a Deformed Fermion Gas Model**  
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- XXVIII. **Quintic Trigonometric B spline Collocation Method to the Numerical Solution of the Burgers Equation**  
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- XXXI. **Cubic Trigonometric B Spline Galerkin Solution for the Equal Width Equation**  
IRK D.



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- XXXII. **Quintic B spline Solution of the Advection Diffusion Equation**  
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- XXXIII. **Cubic B spline Quasi interpolation for Numerical Solution of Regularized Long Wave Equation**  
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International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Turkey, 25 - 27 May 2016, vol.766
- XXXV. **Cubic Trigonometric B-spline Galerkin Methods for the Regularized Long Wave Equation**  
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- XXXVI. **NUMERICAL SOLUTION OF THE BURGERS EQUATION USING TRIGONOMETRIC B SPLINE GALERKİN METHOD**  
IRK D., PINAR K., DAĞ İ.  
20TH INTERNATIONAL CONFERENCE ON MATHEMATICAL MODELLING AND ANALYSIS, SİGULDA, 26 - 29 May 2015
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## Supported Projects

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Dağ İ., Irk D., TUBITAK Project, Üstel B Spline Sonlu Elemanlar Metodu ile Zamana Bağlı Diferansiyel Denklemlerin Yaklaşık Çözümlerinin Bulunması, 2014 - 2016

## **Metrics**

Publication: 95

Citation (WoS): 589

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H-Index (Scopus): 15

## **Non Academic Experience**

Simon Fraser Üniversitesi