# Assoc. Prof. ABDÜLKADİR DOĞAN

### **Personal Information**

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### Education

Post Doctorate, The University of Tennessee at Chattanooga, Fen Bilimleri Enstitüsü, Matematik, United States Of America 2009 - 2009

Post Doctorate, University of Leicester, Fen Bilimleri Enstitüsü, Matematik, United Kingdom 2001 - 2001 Doctorate, University of Wales, Bangor, Fen Bilimleri Enstitüsü, Uygulamalı Matematik, England 1994 - 1997 Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Matematik, Turkey 1989 - 1993 Undergraduate, Hacettepe University, Fen Fakültesi, Matematik, Turkey 1984 - 1988

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, Petrov Galerkin Finite Element Methods, University of Wales, Bangor, Applied Mathematics, Mathematics, 1997

Postgraduate, Klasik Fuzzy Ölçümleri ve Sugeno Fuzzy Ölçümleri Arasındaki İlişkiler, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 1993

## **Research Areas**

Mathematics, Differential Equations, Numerical Analysis, Natural Sciences

### **Academic Positions**

Associate Professor, Abdullah Gul University, Bilgisayar Bilimleri Fakültesi, Matematik, 2012 - Continues

#### Academic and Administrative Experience

Head of Department, Abdullah Gul University, Bilgisayar Bilimleri Fakültesi, Matematik, 2012 - 2015 Head of Department, Nigde Omer Halisdemir University, Fen -Edebiyat Fakültesi, Matematik, 2005 - 2008

#### Courses

## Postgraduate

Advanced Enginering Mathematics, Postgraduate, 2015 - 2016 Advanced Engineering Mathematics, Postgraduate, 2013 - 2014 **Undergraduate** Differential Equations, , Undergraduate, 2022 - 2023 Differential Equations , Undergraduate, 2022 - 2023 Numerical Analysis with Engineering Applications, Undergraduate, 2021 - 2022 Differential Equations , Undergraduate, 2022 - 2023 Differential Equations , Undergraduate, 2022 - 2023 Mathematical Methods for Engineering Applications, Undergraduate, 2021 - 2022 Numerical Analysis with Engineering Applications, Undergraduate, 2021 - 2022 Differential Equations , Undergraduate, 2016 - 2017 Discrete Mathematics, Undergraduate, 2016 - 2017 Introductory Calculus, Undergraduate, 2016 - 2017

# **Supervised Theses**

Doğan A., Zaman skalası üzerine lineer olmayan dinamik denklemler için m-noktalı sınır değer problemlerinin çözümleri, Postgraduate, A.Kaya(Student), 2011

Doğan A., Burgers denklemlerinin sayısal çözümü, Postgraduate, M.Gülbahar(Student), 2007

Doğan A., Galerkin sonlu eleman metoduyla kısmi diferansiyel denklemlerin çözümleri, Postgraduate, S.Güleç(Student), 2007

Doğan A., Düzenli uzun dalga denkleminin nümerik çözümü, Postgraduate, Ş.AYDIN(Student), 2007

Doğan A., En küçük kareler metoduyla kısmi diferansiyel denklemlerin nümerik çözümü, Postgraduate, E.Yıldırım(Student), 2005

Doğan A., Bazı kısmi türevli diferansiyel denklemlerin sayısal çözümleri, Postgraduate, N.Ocak(Student), 2004

# Journal articles indexed in SCI, SSCI, and AHCI

I. Existence results for a class of boundary value problems for fractional differential equations DOĞAN A.

TURKISH JOURNAL OF MATHEMATICS, vol.45, no.3, pp.1149-1165, 2021 (SCI-Expanded)

- II. Positive Solutions of a Three-Point Boundary-Value Problem for the p-Laplacian Dynamic Equation on Time Scales
  - Dogan A.

UKRAINIAN MATHEMATICAL JOURNAL, vol.72, no.6, pp.917-934, 2020 (SCI-Expanded)

- III. Existence of positive solutions for nonlinear multipoint p-Laplacian dynamic equations on time scales
  - DOĞAN A.

TURKISH JOURNAL OF MATHEMATICS, vol.44, no.3, pp.676-697, 2020 (SCI-Expanded)

IV. Solutions to nonlinear second-order three-point boundary value problems of dynamic equations on time scales

DOĞAN A.

TURKISH JOURNAL OF MATHEMATICS, vol.43, no.3, pp.1276-1295, 2019 (SCI-Expanded)

V. Positive solutions of nonlinear multi-point boundary value problems DOĞAN A.

POSITIVITY, vol.22, no.5, pp.1387-1402, 2018 (SCI-Expanded)

VI. POSITIVE SOLUTIONS OF THE p-LAPLACIAN DYNAMIC EQUATIONS ON TIME SCALES WITH SIGN CHANGING NONLINEARITY

DOĞAN A. ELECTRONIC JOURNAL OF DIFFERENTIAL EQUATIONS, 2018 (SCI-Expanded) VII. On the existence of positive solutions of the p-Laplacian dynamic equations on time scales DOĞAN A. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.40, no.12, pp.4385-4399, 2017 (SCI-Expanded) VIII. TRIPLE POSITIVE SOLUTIONS OF m-POINT BOUNDARY VALUE PROBLEM ON TIME SCALES WITH p-LAPLACIAN DOĞAN A. BULLETIN OF THE IRANIAN MATHEMATICAL SOCIETY, vol.43, no.2, pp.373-384, 2017 (SCI-Expanded) IX. EIGENVALUE PROBLEMS FOR SINGULAR MULTI-POINT DYNAMIC EQUATIONS ON TIME SCALES DOĞAN A. ELECTRONIC JOURNAL OF DIFFERENTIAL EQUATIONS, 2017 (SCI-Expanded) X. Eigenvalue problems for nonlinear third-order m-point p-Laplacian dynamic equations on time scales DOĞAN A MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.39, no.7, pp.1634-1645, 2016 (SCI-Expanded) XI. Multiple positive solutions of nonlinear m-point dynamic equations for p-Laplacian on time scales DOĞAN A. TURKISH JOURNAL OF MATHEMATICS, vol.40, no.5, pp.941-959, 2016 (SCI-Expanded) XII. THE EXISTENCE OF POSITIVE SOLUTIONS FOR A SEMIPOSITONE SECOND-ORDER m-POINT **BOUNDARY VALUE PROBLEM** DOĞAN A. DYNAMIC SYSTEMS AND APPLICATIONS, vol.24, no.4, pp.419-427, 2015 (SCI-Expanded) XIII. On the existence of positive solutions for the second-order boundary value problem Dogan A. APPLIED MATHEMATICS LETTERS, vol.49, pp.107-112, 2015 (SCI-Expanded) XIV. ON THE EXISTENCE OF POSITIVE SOLUTIONS FOR THE ONE-DIMENSIONAL p-LAPLACIAN BOUNDARY VALUE PROBLEMS ON TIME SCALES DOĞAN A. DYNAMIC SYSTEMS AND APPLICATIONS, vol.24, no.3, pp.295-303, 2015 (SCI-Expanded) XV. TRIPLE POSITIVE SOLUTIONS FOR m-POINT BOUNDARY-VALUE PROBLEMS OF DYNAMIC EQUATIONS **ON TIME SCALES WITH p-LAPLACIAN** Dogan A. ELECTRONIC JOURNAL OF DIFFERENTIAL EQUATIONS, 2015 (SCI-Expanded) XVI. Existence of Countably Many Positive Solutions for Nonlinear Boundary Value Problems on Time Scales Dogan A. APPLIED MATHEMATICS & INFORMATION SCIENCES, vol.8, no.5, pp.2177-2187, 2014 (SCI-Expanded) XVII. EXISTENCE OF POSITIVE SOLUTIONS FOR p-LAPLACIAN AN m-POINT BOUNDARY VALUE PROBLEM **INVOLVING THE DERIVATIVE ON TIME SCALES** Dogan A. ELECTRONIC JOURNAL OF DIFFERENTIAL EQUATIONS, 2014 (SCI-Expanded) XVIII. Existence of multiple positive solutions for p-Laplacian multipoint boundary value problems on time scales Dogan A. ADVANCES IN DIFFERENCE EQUATIONS, 2013 (SCI-Expanded) XIX. EXISTENCE OF THREE POSITIVE SOLUTIONS FOR AN m-POINT BOUNDARY-VALUE PROBLEM ON TIME **SCALES** Dogan A. ELECTRONIC JOURNAL OF DIFFERENTIAL EQUATIONS, 2013 (SCI-Expanded)

XX. HIGHER-ORDER SINGULAR MULTI-POINT BOUNDARY-VALUE PROBLEMS ON TIME SCALES

	DOĞAN A., Graef J. R., Kong L.
	PROCEEDINGS OF THE EDINBURGH MATHEMATICAL SOCIETY, vol.54, pp.345-361, 2011 (SCI-Expanded)
XXI.	Higher order semipositone multi-point boundary value problems on time scales
	Dogan A., Graef J. R., Kong L.
	COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.60, no.1, pp.23-35, 2010 (SCI-Expanded)
XXII.	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)
XXIII.	Application of Galerkin's method to equal width wave equation
	DOĞAN A.
	APPLIED MATHEMATICS AND COMPUTATION, vol.160, no.1, pp.65-76, 2005 (SCI-Expanded)
XXIV.	A Galerkin finite element approach to Burgers' equation
	DOĞAN A.
	APPLIED MATHEMATICS AND COMPUTATION, vol.157, no.2, pp.331-346, 2004 (SCI-Expanded)
XXV.	Galerkin method for the numerical solution of the RLW equation using quadratic B-splines
	Saka B., Dag I., DOĞAN A.
	INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.81, no.6, pp.727-739, 2004 (SCI-Expanded)
XXVI.	Numerical investigation of heat and mass transfer in a metal hydride bed
	DOĞAN A., Kaplan Y., Veziroğlu T. N.
	APPLIED MATHEMATICS AND COMPUTATION, vol.150, no.1, pp.169-180, 2004 (SCI-Expanded)
XXVII.	B-spline collocation methods for numerical solutions of the RLW equation
	Dag I., DOĞAN A., Saka B.
	INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.80, no.6, pp.743-757, 2003 (SCI-Expanded)
XXVIII.	Numerical solution of RLW equation using linear finite elements within Galerkin's method
	DOĞAN A.
	APPLIED MATHEMATICAL MODELLING, vol.26, no.7, pp.771-783, 2002 (SCI-Expanded)
XXIX.	Numerical solution of regularized long wave equation using Petrov-Galerkin method
	DOĞAN A.
	COMMUNICATIONS IN NUMERICAL METHODS IN ENGINEERING, vol.17, no.7, pp.485-494, 2001 (SCI-Expanded)
XXX.	A Petrov-Galerkin finite element scheme for Burgers' equation
	Gardner L. R., Gardner G., DOĞAN A.
	ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.22, pp.99-109, 1997 (SCI-Expanded)
XXXI.	A least-squares finite element scheme for the RLW equation
	Gardner L. R., Gardner G., DOĞAN A.
	COMMUNICATIONS IN NUMERICAL METHODS IN ENGINEERING, vol.12, no.11, pp.795-804, 1996 (SCI-Expanded)

# **Articles Published in Other Journals**

 I. Positive solutions of multipoint φ-Laplacian BVPs with first-order derivative dependence Bachouche K., Tair H., DOĞAN A. Asian-European Journal of Mathematics, vol.16, no.6, 2023 (ESCI)
II. Existence of positive solutions to multi-point third order problems with sign changing nonlinearities DOĞAN A., Graef J. R.

ACTA ET COMMENTATIONES UNIVERSITATIS TARTUENSIS DE MATHEMATICA, vol.24, no.1, pp.109-129, 2020 (ESCI)

III. Three positive solutions of a three-point boundary value problem for the p-Laplacian dynamic equation on time scales DOĞAN A.

Communications in Optimization Theory, pp.1-13, 2018 (Peer-Reviewed Journal)

IV. On the existence of positive solutions for nonlinear three-point boundary value problem

DOĞAN A. Communications in Optimization Theory, 2018 (Peer-Reviewed Journal)

# Papers Presented at Peer-Reviewed Scientific Conferences

 Existence criteria of three positive solutions to boundary value problems for p Laplacian dynamic equtions on time scales DOĞAN A.

3rd International Conference on Recent Advances in Pure and Applied Mathematics, 19 - 23 May 2016

II. On the existence of positive solutions for nonlinear three point boundary value problem DOĞAN A.

2nd International Conference on Analysis and its Applications, 12 - 15 July 2016

# **Funded Projects**

Doğan A., Project Supported by Other Official Institutions, Sonlu Eleman Methodları, 2002 - 2004

# Peer Reviews in Scientific Publications

Journal of Inequalities and Applications, SCI Journal, May 2018 Electronic Journal of Differential Equations, SCI Journal, October 2017 Advances in Difference Equations, SCI Journal, February 2017 Dynamics of Continuous, Discrete and Impulsive Systems Series A Mathematical Analysis, SCI Journal, August 2016 Boundary Value problems, SCI Journal, May 2016 Bulletin of Iranian Mathematical Society, SCI Journal, March 2015 Advances in Difference Equations, SCI Journal, May 2014 Advances in difference Equations, SCI Journal, March 2014 Computers and Mathematics with Applications, SCI Journal, June 2010 Applied Mathematical Modelling, SCI Journal, February 2010 Applied Mathematics and Computation, SCI Journal, May 2005 Journal of Computational and Applied Mathematics, SCI Journal, March 2004

# **Metrics**

Publication: 37 Citation (WoS): 604 Citation (Scopus): 655 H-Index (WoS): 12 H-Index (Scopus): 12

# **Congress and Symposium Activities**

International Conference on Differential&Difference Equations and Applications 2019, July 1-5, 2019, Lisbon, Portugal, Invited Speaker, Lisbon, Portugal, 2019

2 nd International Conference of Analysis and its Applications, July 12-15, 2016 at Ahi Evran University, Kırşehir, Invited Speaker, Kırşehir, Turkey, 2016

The 3rd International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM2016),19-23 May

2016,Bodrum-Muğla,Turkey, Invited Speaker, Muğla, Turkey, 2016 International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM2014), 6-9 November 2014, Antalya, Turkey, Invited Speaker, Antalya, Turkey, 2014 10th AIMS International Conference on Dynamical Systems,Differential Equations and Applications,July 7-11,2014,Madrid,Spain, Invited Speaker, Madrid, Spain, 2014 9th AIMS International Conference on Dynamical Systems,Differential Equations and Applications,July 1-5,2012,Orlando,Florida,USA, Invited Speaker, Florida, United States Of America, 2012 8th AIMS International Conference on Dynamical Systems, Differential Equations and Applications,May 25-28, 2010 Dresden, Germany, Invited Speaker, Dresden, Germany, 2010 Applications of Time Scales to Biology,Economics and Engineering, American Mathematical Society in San Francisco, CA, January 13-16,2010, California,USA, Invited Speaker, California, United States Of America, 2010 4th International Conference of Applied Mathematics and Computing,August 12-18, 2007, Plovdiv, Bulgaria, Invited Speaker, Plovdiv, Bulgaria, 2007 Erasmus Teaching Mobility, June 2007, Slovakia, Invited Speaker, Trnava, Slovakia, 2007

## **Scholarships**

Post doktora, TUBITAK, 2009 - 2009 Post doktora, NATO, 2001 - 2001 Doktora bursu, YOK, 1993 - 1997 Lisans bursu, Special Institutions and Organizations, 1986 - 1988