#### Res. Asst. Meltem UZUN

#### **Personal Information**

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#### International Researcher IDs

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#### **Education Information**

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik, Turkey 2014 - Continues

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik, Turkey 2011 -

Undergraduate, Dokuz Eylul University, Fen Fakültesi, Matematik, Turkey 2006 - 2011

### Foreign Languages

English, C1 Advanced

### **Certificates, Courses and Trainings**

Education Management and Planning, Pedagojik Formasyon Eğitimi Sertifika Programı, Dokuz Eylül Üniversitesi, 2012

#### **Dissertations**

Postgraduate, High Order Stable Difference Schemes for Multipoint Nonlocal Boundary Value Problems for Hyperbolic Equations, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Matematik, 2014

### **Research Areas**

Mathematics, Differential Equations, Functional Analysis, Numerical Analysis, Natural Sciences

### **Academic Titles / Tasks**

Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2014 - Continues Research Assistant, Uludağ Üniversitesi, 2013 - 2014

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

I. Weak solvability of the unconditionally stable difference scheme for the coupled sine-Gordon system YILDIRIM Ö., UZUN M.

NONLINEAR ANALYSIS-MODELLING AND CONTROL, vol.25, no.6, pp.997-1014, 2020 (SCI-Expanded)

II. On Fourth-Order Stable Difference Scheme for Hyperbolic Multipoint NBVP

Yıldırım Ö., Uzun M.

NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION, vol.38, pp.1305-1324, 2017 (SCI-Expanded)

III. On the numerical solutions of high order stable difference schemes for the hyperbolic multipoint nonlocal boundary value problems

Yıldırım Ö., Uzun M.

APPLIED MATHEMATICS AND COMPUTATION, vol.254, pp.210-218, 2015 (SCI-Expanded)

IV. On Third Order Stable Difference Scheme for Hyperbolic Multipoint Nonlocal Boundary Value Problem

Yıldırım Ö., Uzun M.

DISCRETE DYNAMICS IN NATURE AND SOCIETY, 2015 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

I. NUMERICAL ANALYSIS OF THE NONLINEAR WAVE SYSTEMS BY A NOVEL ITERATIVE METHOD YILDIRIM Ö., UZUN M.

ICFAS 2020, 06 October 2020

II. On Convergence of Second Order of AccuracyFinite-Dierence Scheme for Coupled sine-GordonEquations

YILDIRIM Ö., UZUN M.

CMMSE'20, ROTA CADIZ, Spain, 3 - 09 July 2020

III. On unique solvability of nonlinear coupled systems

Yıldırım Ö., Uzun M.

International Conference of Mathematical Sciences (ICMS 2019), İstanbul, Turkey, 4 - 08 September 2019, pp.1-10

IV. On Weak Solvability of Coupled Systems

Yıldırım Ö., Uzun M.

3. International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, İstanbul, Turkey, 3 - 05 July 2019

V. A COMPOSITE NUMERICAL METHOD ON THE SOLUTION OF COUPLED SINE-GORDON EQUATIONS BASED ON THE FIXED POINT THEORY

Yıldırım Ö., Uzun M.

Banach Spaces and their Applications, Lviv, Ukraine, 26 - 29 June 2019

VI. ON GENERALIZED SOLUTIONS OF NONLINEAR SYSTEMS

Yıldırım Ö., Uzun M.

6th International Congress on Fundamental and Applied Sciences 2019 (ICFAS2019), Tirane, Albania, 18 - 20 June 2019, pp.146

VII. A Note on the Numerical Solution of Coupled Klein-Gordon Equations

YILDIRIM Ö., UZUN M.

3rd International Conference of Mathematical Sciences (ICMS), İstanbul, Turkey, 4 - 08 September 2019, vol.2183

VIII. On the numerical solution of nonlinear system of coupled sine-Gordon equations

Yıldırım Ö., Uzun M.

the Fourth International Conference on Analysis and Applied Mathematics, ICAAM 2018, Mersin, Turkey, 6 - 09 September 2018, pp.79

IX. NUMERICAL SOLUTION OF HYPERBOLIC EQUATIONS WITH NONLOCAL BVPs

Yıldırım Ö., Uzun M.

5th International Congress on Fundamental and Applied Sciences 2018 (ICFAS2018), Skopje, Macedonia, 18 - 22 June 2018, pp.212

#### X. On the Numerical Solution of Nonlinear System of Coupled Sine-Gordon Equations

Yıldırım Ö., Uzun M., Altun O.

4th International Conference on Analysis and Applied Mathematics (ICAAM), Mersin, Turkey, 6 - 09 September 2018, vol.1997

## XI. Unique Solvability Results on Boundary Value Problems for Semilinear Hyperbolic Equations

Yıldırım Ö., Uzun M.

International Congress on Fundamental and Applied Sciences, Sarajevo, Bosnia And Herzegovina, 21 - 25 August 2017, pp.78

#### XII. A Note on the Exact Solution Methods for Nonlinear PDEs

Yıldırım Ö., Uzun M.

International Congress on Fundamental and Applied Sciences, Sarajevo, Bosnia And Herzegovina, 21 - 25 August 2017, pp.78

#### XIII. On the Existence and Uniqueness of Solutions to Nonlinear Wave Equations

Yıldırım Ö., Uzun M.

International Conference on Mathematics and Mathematics Education, Şanlıurfa, Turkey, 11 - 13 May 2017, pp.549-550

#### XIV. On the analytical solution methods for sine Gordon equation

Yıldırım Ö., Uzun M.

ICAAM 2016, Almati, Kazakhstan, 7 - 10 September 2016

#### XV. On the numerical solution of sine Gordon equation

Yıldırım Ö., Uzun M.

ICAAM 2016, Almati, Kazakhstan, 7 - 10 September 2016

#### XVI. On stable difference schemes for multipoint NBVP of the hyperbolic type

Yıldırım Ö., Uzun M

International Congress on Fundamental and Applied Sciences (ICFAS 2016), İstanbul, Turkey, 22 - 26 August 2016

## XVII. On Stability of Fourth Order of Accuracy Difference Scheme for Hyperbolic Multipoint NBVP with Neumann Conditions

Yıldırım Ö., Uzun M.

International Conference on Mathematics and Mathematics Education (ICMME 2016), Elazığ, Turkey, 12 - 15 May 2016, pp.392-393

# XVIII. On stability of difference schemes for hyperbolic multipoint NBVP with Neumann conditions YILDIRIM Ö., UZUN M.

3rd International Conference on Analysis and Applied Mathematics (ICAAM), Almaty, Kazakhstan, 7 - 10 September 2016, vol.1759

# XIX. Third order accurate stable difference scheme for the hyperbolic multipoint nbvp with Neumann conditions

Yıldırım Ö., Uzun M.

International Conference on Advancements in Mathematical Sciences (AMS Conference), Antalya, Turkey, 5 - 07 November 2015, pp.232

# XX. On stability of high order difference schemes for hyperbolic multipoint nonlocal boundary value problem

Yıldırım Ö., Uzun M.

AMS- EMS- SPM International Meeting 2015, Porto, Portugal, 10 - 13 June 2015, pp.75

## XXI. A Note on the Numerical Solution of Multipoint Nonlocal Boundary Value Hyperbolic Problem with Neumann Conditions

YILDIRIM Ö., UZUN M.

ICAAMM15, 8 - 12 June 2015, pp.200

# XXII. On Third Order of Accuracy Stable Difference Scheme for Multipoint NBVP of the Hyperbolic Type YILDIRIM Ö., UZUN M.

ICAAM 2014, 11 - 13 September 2014

XXIII. On fourth order of accuracy stable difference scheme for multipoint nbvp of the hyperbolic type Yıldırım Ö., Uzun M.

ICAAM 2014, Simkent, Kazakhstan, 11 - 13 September 2014

XXIV. High order of accuracy stable difference schemes for the approximate solution of the multipoint NBVP for the hyperbolic equation

YILDIRIM Ö., UZUN M.

2nd International Conference on Analysis and Applied Mathematics (ICAAM), Shymkent, Kazakhstan, 11 - 13 September 2014, vol.1611, pp.305-309

XXV. On a New Subclass of Meromorphic Harmonic Convex Functions

UZUN M., Bostanci H., Ozturk M.

Geometric Function Theory and Applications - GFTA 2013, İstanbul, Turkey, 26 August 2013, pp.35

### **Supported Projects**

YILDIRIM Ö., UZUN M., Project Supported by Higher Education Institutions, ON SOLVABILITY OF NONLINEAR COUPLED WAVE SYSTEMS ARISING IN DNA DYNAMICS (DNA Dinamiğinde Ortaya Çıkan Nonlineer Bağlı Dalga Denklem Sistemlerinin Çözülebilirliği Üzerine), 2016 - 2021

#### **Metrics**

Publication: 29 Citation (WoS): 22 Citation (Scopus): 50 H-Index (WoS): 3 H-Index (Scopus): 5

### **Congress and Symposium Activities**

3. International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, Working Group, İstanbul, Turkey, 2019

6th International Congress on Fundamental and Applied Sciences (ICFAS2019), Working Group, Tirane, Albania, 2019 ICAAM 2018 Fourth International Conference on Analysis and Applied Mathematics, Working Group, Lefkoşa, Cyprus (Kktc), 2018

5th International Congress on Fundamental and Applied Sciences (ICFAS2018), Working Group, Skopje, Macedonia, 2018

İstanbul Üniversitesi Fen Fakültesi Öğrenci Matematik Çalıştayı IV, Working Group, İstanbul, Turkey, 2018 International Congress on Fundamental and Applied Sciences (ICFAS2017), Working Group, Sarajevo, Bosnia And Herzegovina, 2017

International Conference on Mathematics and Mathematics Education (ICMME 2017), Working Group, Şanlıurfa, Turkey, 2017

İstanbul Üniversitesi Fen Fakültesi Öğrenci Matematik Çalıştayı III, Working Group, İstanbul, Turkey, 2017 ICAAM 2016 Third International Conference on Analysis and Applied Mathematics, Working Group, Almati, Kazakhstan, 2016

International Congress on Fundamental and Applied Sciences (ICFAS2016), Working Group, İstanbul, Turkey, 2016 TÜZDER IV. Dahiler ve Üstün Zekalılar Günü, Working Group, İstanbul, Turkey, 2016

International Conference on Mathematics and Mathematics Education (ICMME 2016), Working Group, Elazığ, Turkey, 2016

İstanbul Üniversitesi Fen Fakültesi Öğrenci Matematik Çalıştayı, Working Group, İstanbul, Turkey, 2016 International Conference on Advancements in Mathematical Sciences (AMS Conference), Working Group, Antalya, Turkey, 2015

ICAAMM 2015 International Conference on Applied Analysis and Mathematical Modeling, Working Group, İstanbul, Turkey, 2015

ICAAM 2014 Second International Conference on Analysis and Applied Mathematics, Working Group, Simkent, Kazakhstan, 2014

Geometric Function Theory and Applications - GFTA 2013, Working Group, İstanbul, Turkey, 2013