

## **Prof. Dr. FATMA FEN**

### **Kişisel Bilgiler**

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### **Uluslararası Araştırmacı ID'leri**

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Publons / Web Of Science ResearcherID: AID-9625-2022  
ScopusID: 57194161648  
Yoksis Araştırmacı ID: 52608

### **Eğitim Bilgileri**

Lisans, Anadolu Üniversitesi, İktisat Fakültesi, İktisat Bölümü, Türkiye 2006 - 2019  
Doktora, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Analiz Ve Fonksiyonlar Teorisi (Dr), Türkiye 2011 - 2014  
Yüksek Lisans, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Analiz Ve Fonksiyonlar Teorisi (YI) (Tezli), Türkiye 2009 - 2011  
Lisans, Ege Üniversitesi, Fen Fakültesi, Matematik Bölümü, Türkiye 2005 - 2009

### **Yaptığı Tezler**

Doktora, Zaman skalasında integral sınır koşullu impulsivdeğer probleminin pozitif çözümleri, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Analiz Ve Fonksiyonlar Teorisi (Dr), 2014  
Yüksek Lisans, Zaman skalasında bir boyutlu p-laplacian sınır değer problemlerinin pozitif çözümleri, Ege Üniversitesi, Fen Bilimleri Enstitüsü, Analiz Ve Fonksiyonlar Teorisi (YI) (Tezli), 2011

### **Araştırma Alanları**

Matematik, Diferansiyel denklemler, Dinamik Sistemler ve Ergodik Kuramı, Fonksiyonel Analiz, İntegral Denklemleri

### **Akademik Unvanlar / Görevler**

Prof. Dr., Gazi Üniversitesi, Fen Fakültesi, Matematik, 2023 - Devam Ediyor  
Doç. Dr., Gazi Üniversitesi, Fen Fakültesi, Matematik, 2020 - 2023  
Araştırma Görevlisi, Gazi Üniversitesi, Fen Fakültesi, Matematik, 2014 - 2020  
Uzman, Georgia State University, Neuroscience Institute, 2014 - 2015

### **Verdiği Dersler**

Araştırma Projesi II, Lisans, 2019 - 2020  
Mathematics I, Lisans, 2017 - 2018  
Fonksiyonel Analiz I, Lisans, 2017 - 2018  
Differential Equations, Lisans, 2017 - 2018  
Advanced Mathematics I, Lisans, 2017 - 2018

Diferansiyel Denklemler, Lisans, 2017 - 2018

Genel Matematik I, Lisans, 2017 - 2018

Genel Matematik II, Lisans, 2017 - 2018

Matematik I, Lisans, 2017 - 2018

Mathematics II, Lisans, 2017 - 2018

Engineering Mathematics, Lisans, 2017 - 2018

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

- I. **Unpredictability in Quasilinear Non-Autonomous Systems with Regular Moments of Impulses**  
Fen M. O., Tokmak Fen F.  
Mediterranean Journal of Mathematics, cilt.20, sa.4, 2023 (SCI-Expanded)
- II. **A novel criterion for unpredictable motions**  
FEN F., Fen M. O., AKHMET M.  
Filomat, cilt.37, sa.18, ss.6151-6160, 2023 (SCI-Expanded)
- III. **Quasilinear systems with unpredictable relay perturbations**  
Fen M. O., FEN F.  
TURKISH JOURNAL OF MATHEMATICS, cilt.46, ss.1369-1383, 2022 (SCI-Expanded)
- IV. **Replication of Period-Doubling Route to Chaos in Coupled Systems with Delay**  
Fen M. O., FEN F.  
FILOMAT, cilt.36, sa.2, ss.599-613, 2022 (SCI-Expanded)
- V. **Unpredictable oscillations of SICNNs with delay**  
Fen M. O., FEN F.  
NEUROCOMPUTING, cilt.464, ss.119-129, 2021 (SCI-Expanded)
- VI. **Homoclinical Structure of Retarded SICNNs with Rectangular Input Currents**  
Fen M. O., FEN F.  
NEURAL PROCESSING LETTERS, cilt.49, sa.2, ss.521-538, 2019 (SCI-Expanded)
- VII. **Replication of period-doubling route to chaos in impulsive systems**  
Fen M. O., Fen F.  
ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS, sa.58, ss.1-20, 2019 (SCI-Expanded)
- VIII. **ON THE SOLUTIONS OF A MULTI-POINT BVP FOR FRACTIONAL DIFFERENTIAL EQUATIONS WITH IMPULSES**  
FEN F.  
MISKOLC MATHEMATICAL NOTES, cilt.19, sa.2, ss.847-863, 2018 (SCI-Expanded)
- IX. **Existence of positive solutions for fourth-order impulsive integral boundary value problems on time scales**  
FEN F., Karaca I. Y.  
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, cilt.40, sa.16, ss.5727-5741, 2017 (SCI-Expanded)
- X. **HOMOCLINIC AND HETEROCLINIC MOTIONS IN HYBRID SYSTEMS WITH IMPACTS**  
Fen M. O., FEN F.  
MATHEMATICA SLOVACA, cilt.67, sa.5, ss.1179-1188, 2017 (SCI-Expanded)
- XI. **SICNNs with Li-Yorke chaotic outputs on a time scale**  
Fen M. O., FEN F.  
NEUROCOMPUTING, cilt.237, ss.158-165, 2017 (SCI-Expanded)
- XII. **EXISTENCE OF POSITIVE SOLUTIONS FOR A NONLINEAR nTH-ORDER m-POINT p-LAPLACIAN IMPULSIVE BOUNDARY VALUE PROBLEM**  
Karaca I. Y., FEN F.  
MATHEMATICA SLOVACA, cilt.67, sa.2, ss.467-482, 2017 (SCI-Expanded)
- XIII. **Positive Solutions of Boundary Value Problems for p-Laplacian Fractional Differential Equations**

- FEN F., Karaca I. Y., ÖZEN Ö.  
 FILOMAT, cilt.31, sa.5, ss.1265-1277, 2017 (SCI-Expanded)
- XIV. **POSITIVE SOLUTIONS OF nTH-ORDER m-POINT BOUNDARY VALUE PROBLEMS**  
 Karaca I. Y., Fen F.  
 BULLETIN OF THE IRANIAN MATHEMATICAL SOCIETY, cilt.42, sa.6, ss.1429-1439, 2016 (SCI-Expanded)
- XV. **On Positive Solutions of Nonlinear Third-Order Impulsive Boundary Value Problems on Time Scales**  
 Karaca I. Y., FEN F.  
 MEDITERRANEAN JOURNAL OF MATHEMATICS, cilt.13, sa.6, ss.4447-4461, 2016 (SCI-Expanded)
- XVI. **EXISTENCE OF POSITIVE SOLUTIONS FOR NONLINEAR THIRD-ORDER m-POINT IMPULSIVE BOUNDARY-VALUE PROBLEMS ON TIME SCALES**  
 Karaca I. Y., Fen F.  
 UKRAINIAN MATHEMATICAL JOURNAL, cilt.68, sa.3, ss.458-474, 2016 (SCI-Expanded)
- XVII. **On the Solvability of a System of Multi-Point Second Order Boundary Value Problem**  
 Cerdiki T. S., Karaca I. Y., Sinanoglu A., FEN F.  
 JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, cilt.20, sa.4, ss.666-673, 2016 (SCI-Expanded)
- XVIII. **Existence of Positive Solutions for Nonlinear Second-Order Impulsive Boundary Value Problems on Time Scales**  
 FEN F., Karaca I. Y.  
 MEDITERRANEAN JOURNAL OF MATHEMATICS, cilt.13, sa.1, ss.191-204, 2016 (SCI-Expanded)
- XIX. **Positive solutions of nth-order impulsive differential equations with integral boundary conditions**  
 FEN F., Karaca I. Y.  
 ANALELE STIINTIFICE ALE UNIVERSITATII OVIDIU CONSTANTA-SERIA MATEMATICA, cilt.24, sa.1, ss.243-261, 2016 (SCI-Expanded)
- XX. **EXISTENCE OF POSITIVE SOLUTIONS TO nTH ORDER p-LAPLACIAN BOUNDARY VALUE PROBLEMS WITH INTEGRAL BOUNDARY CONDITIONS**  
 Karaca I. Y., FEN F.  
 MISKOLC MATHEMATICAL NOTES, cilt.17, sa.1, ss.381-397, 2016 (SCI-Expanded)
- XXI. **On positive solutions of m-point boundary value problems for p-Laplacian impulsive dynamic equations on time scales**  
 FEN F., Karaca I. Y.  
 INDIAN JOURNAL OF PURE & APPLIED MATHEMATICS, cilt.46, sa.5, ss.723-738, 2015 (SCI-Expanded)
- XXII. **Positive solutions of nth-order m-point impulsive boundary value problems**  
 Karaca I. Y., FEN F.  
 GEORGIAN MATHEMATICAL JOURNAL, cilt.22, sa.3, ss.373-384, 2015 (SCI-Expanded)
- XXIII. **Positive Solutions of nth-Order Boundary Value Problems with Integral Boundary Conditions**  
 Karaca I. Y., FEN F.  
 MATHEMATICAL MODELLING AND ANALYSIS, cilt.20, sa.2, ss.188-204, 2015 (SCI-Expanded)
- XXIV. **Multiple Positive Solutions for Nonlinear Second-Order m-Point Impulsive Boundary Value Problems on Time Scales**  
 Karaca I. Y., FEN F.  
 FILOMAT, cilt.29, sa.4, ss.817-827, 2015 (SCI-Expanded)
- XXV. **Existence of positive solutions for boundary value problems of p-Laplacian difference equations**  
 FEN F., Karaca I. Y.  
 ADVANCES IN DIFFERENCE EQUATIONS, 2014 (SCI-Expanded)
- XXVI. **Existence of positive solutions for p-Laplacian impulsive boundary value problems on time scales**  
 Tokmak F., Karaca I. Y.  
 JOURNAL OF INEQUALITIES AND APPLICATIONS, 2014 (SCI-Expanded)
- XXVII. **Existence of three symmetric positive solutions for a second-order multi-point boundary value problem on time scales**  
 Sinanoglu A., Karaca I. Y., Tokmak F., Senlik T.  
 ADVANCES IN DIFFERENCE EQUATIONS, 2014 (SCI-Expanded)

- XXVIII. **Eigenvalues for iterative systems of nonlinear m-point boundary value problems on time scales**  
 Karaca I. Y., Tokmak F.  
 BOUNDARY VALUE PROBLEMS, 2014 (SCI-Expanded)
- XXIX. **Existence of Solutions for Nonlinear Impulsive Fractional Differential Equations with p-Laplacian Operator**  
 Karaca I. Y., Tokmak F.  
 MATHEMATICAL PROBLEMS IN ENGINEERING, cilt.2014, 2014 (SCI-Expanded)
- XXX. **Multiple positive solutions of boundary value problems for p-laplacian impulsive dynamic equations on time scales**  
 Karaca I. Y., Ozen O. B., Tokmak F.  
 Fixed Point Theory, cilt.15, sa.2, ss.475-486, 2014 (SCI-Expanded)
- XXXI. **Existence of positive solutions for nonlinear third-order m-point boundary value problems on time scales**  
 Karaca I. Y., Tokmak F.  
 Filomat, cilt.28, sa.5, ss.925-935, 2014 (SCI-Expanded)
- XXXII. **Existence of symmetric positive solutions for a multipoint boundary value problem with sign-changing nonlinearity on time scales**  
 Tokmak F., Karaca I. Y.  
 Boundary Value Problems, cilt.2013, 2013 (SCI-Expanded)
- XXXIII. **Existence of positive solutions for third-order boundary value problems with integral boundary conditions on time scales**  
 Karaca I. Y., Tokmak F.  
 Journal of Inequalities and Applications, cilt.2013, 2013 (SCI-Expanded)
- XXXIV. **Existence of positive solutions for third-order m-point boundary value problems with sign-changing nonlinearity on time scales**  
 Tokmak F., Karaca I. Y.  
 Abstract and Applied Analysis, cilt.2012, 2012 (SCI-Expanded)
- XXXV. **Existence of three positive solutions for M-point time scale boundary value problems on infinite intervals**  
 Ilkay Y. K., Tokmak F.  
 Dynamic Systems and Applications, cilt.20, sa.2-3, ss.355-368, 2011 (SCI-Expanded)

## Diger Dergilerde Yayınlanan Makaleler

- I. **Modulo periodic Poisson stable solutions of dynamic equations on a time scale**  
 FEN F., FEN M. O.  
 COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS,  
 cilt.72, sa.4, ss.907-920, 2023 (ESCI)
- II. **Nonlinear Four-point Impulsive Fractional Differential Equations with p-Laplacian Operator**  
 Fen F., Karaca İ.  
 Discontinuity, Nonlinearity, and Complexity, cilt.4, sa.4, ss.467-486, 2015 (Scopus)
- III. **EIGENVALUES FOR ITERATIVE SYSTEMS OF DYNAMIC EQUATIONS WITH INTEGRAL BOUNDARY CONDITIONS**  
 Karaca I. Y., FEN F.  
 COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS,  
 cilt.64, sa.1, ss.87-97, 2015 (ESCI)
- IV. **Existence of Positive Solutions for a Second Order Eigenvalue Boundary Value Problem with Impulse on Time Scales**  
 FEN F., KARACA İ.  
 Journal of Advanced Research in Applied Mathematics, cilt.6, sa.2, ss.32-49, 2014 (Hakemli Dergi)

- V. **Positive Solutions of Boundary Value Problems for Second order p Laplacian Difference Equations**  
FEN F., KARACA İ.  
International Journal of Difference Equations, cilt.9, sa.2, ss.243-269, 2014 (Scopus)
- VI. **Positive solutions for second order multi point boundary value problems**  
FEN F., KARACA İ.  
Chaotic Modeling and Simulation, cilt.3, ss.463-471, 2013 (Hakemli Dergi)
- VII. **Positive solutions of an impulsive second order boundary value problem on time scales**  
FEN F., KARACA İ.  
Dynamics Of Continuous Discrete And Impulsive Systems-Series A-Mathematical Analysis, cilt.20, sa.1, ss.695-708, 2013 (Scopus)

### Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Unpredictability in Retarded Shunting Inhibitory Cellular Neural Networks**  
Fen F., Fen M. O.  
IV International Conference on Mathematics and its Applications in Science and Engineering (ICMASE 2023), Madrid, İspanya, 12 - 14 Temmuz 2023, ss.77
- II. **Zaman Skalası Üzerindeki Sınır Değer Problemlerinin Pozitif Çözümleri**  
KARACA İ., FEN F.  
14. Ankara Matematik Günleri, Ankara, Türkiye, 28 - 29 Haziran 2019
- III. **Retarded SICNNs with Homoclinic and Heteroclinic Outputs**  
FEN F., FEN M. O.  
International Conference on Mathematical Studies and Applications 2018 (ICMSA 2018), 4 - 06 Ekim 2018
- IV. **Period-doubling Route to Chaos in Systems with Impulsive Effects**  
FEN F., FEN M. O.  
International Conference on Applied Mathematics in Engineering (ICAME18), 27 - 29 Haziran 2018
- V. **Third Order Impulsive Boundary Value Problems on Time Scales with Positive Solutions**  
KARACA İ., FEN F.  
International Conference on Applied Mathematics in Engineering (ICAME18), Balıkesir, Türkiye, 27 - 29 Haziran 2018
- VI. **Eigenvalues for iterative systems of nonlinear boundary value problems**  
KARACA İ., FEN F.  
International Conference on Nonlinear Differential and Difference Equations: Recent Developments and Applications (ICNDDE 2014), Antalya, Türkiye, 27 - 30 Mayıs 2014
- VII. **Chaotic Dynamics of SICNNs on a Time Scale**  
FEN F., FEN M. O.  
International Workshop on Mathematical Methods in Engineering (MME2017), 27 - 29 Nisan 2017
- VIII. **Positive Solutions for a Fourth-Order Multipoint Impulsive BVP with p-Laplacian on Time Scales**  
FEN F., KARACA İ.  
THE SEVENTH INTERNATIONAL CONFERENCE ON DYNAMIC SYSTEMS AND APPLICATIONS THE FIFTH INTERNATIONAL CONFERENCE ON NEURAL, PARALLEL, AND SCIENTIFIC COMPUTATIONS, Atlanta, Amerika Birleşik Devletleri, 27 - 30 Mayıs 2015, cilt.7, ss.83-89
- IX. **Hücresel Sınır Ağları Modellerinde Homoklinik ve Heteroklinik Yörüngeler**  
FEN M. O., FEN F.  
11. Ankara Matematik Günleri, Ankara, Türkiye, 26 - 27 Mayıs 2016
- X. **Homoclinical Structure of Hybrid Systems with Impacts**  
FEN M. O., FEN F.  
3rd International Conference on Recent Advances in Pure and Applied Mathematics, 19 - 23 Mayıs 2016
- XI. **Impulsive Boundary Value Problem for Nonlinear Differential Equations of Fractional Order 2 3**  
KARACA İ., FEN F.

- 4th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2015), Atina, Yunanistan, 31 Ağustos - 03 Eylül 2015
- XII. **On the Solutions of a Multi Point BVP for Impulsive Fractional Differential Equations**  
FEN F.  
Carolina Dynamics Symposium 2015, Atlanta, Amerika Birleşik Devletleri, 24 - 26 Nisan 2015
- XIII. **Nonlinear Second Order Impulsive Boundary Value Problems**  
FEN F., KARACA İ.  
2015 Georgia Scientific Computing Symposium, Atlanta, Amerika Birleşik Devletleri, 28 Şubat 2015
- XIV. **Nonlinear four point impulsive fractional differential equations with p Laplacian operator**  
FEN F., KARACA İ.  
5th International Conference on Nonlinear Science and Complexity, Xi'xxan, Çin, 4 - 09 Ağustos 2014
- XV. **Existence of Positive Solutions for Non Homogeneous BVPs of p Laplacian Difference Equations**  
FEN F., KARACA İ.  
International Congress in Honour of Professor Ravi P. Agarwal, Bursa, Türkiye, 23 - 26 Haziran 2014
- XVI. **Existence Results for Nonlinear Impulsive Fractional Differential Equations with p Laplacian Operator**  
KARACA İ., FEN F.  
International Congress in Honour of Professor Ravi P. Agarwal, Bursa, Türkiye, 23 - 26 Haziran 2014
- XVII. **Existence of positive solutions for p Laplacian impulsive boundary value problems**  
FEN F., KARACA İ.  
International Conference on Nonlinear Differential and Difference Equations: Recent Developments and Applications (ICNDDE 2014), Antalya, Türkiye, 27 - 30 Mayıs 2014
- XVIII. **Positive Solutions of Boundary Value Problems for Second Order p Laplacian Difference Equations**  
FEN F., KARACA İ.  
The International Workshop on Progress in Difference Equations, İzmir, Türkiye, 21 - 24 Mayıs 2014
- XIX. **Existence of positive solutions for nonlinear third order m point boundary value problems on time scales**  
KARACA İ., FEN F.  
The Algerian-Turkish International Days on Mathematics 2013, İstanbul, Türkiye, 12 - 14 Eylül 2013
- XX. **On the Solvability of a System of Multi Point Second Order Boundary Value Problem**  
Şenlik T., KARACA İ., Sinanoğlu A., FEN F.  
2nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2013), Saraybosna, Bosna-Hersek, 26 - 29 Ağustos 2013
- XXI. **The Existence of Symmetric Positive Solutions for a Nonlinear Multi Point Boundary Value Problem on Time Scales**  
FEN F., KARACA İ., Senlik T., Sinanoglu A.  
2nd International Eurasian Conference on Mathematical Sciences and Applications, Saraybosna, Bosna-Hersek, 26 - 29 Ağustos 2013
- XXII. **Existence of Three Symmetric Positive Solutions for a Second Order Multi Point Boundary Value Problem on Time Scales**  
Sinanoğlu A., KARACA İ., FEN F., Şenlik T.  
2nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2013), Saraybosna, Bosna-Hersek, 26 - 29 Ağustos 2013
- XXIII. **Existence of Positive Solutions for Third Order Boundary Value Problems with Integral Boundary Conditions on Time Scales**  
KARACA İ., FEN F.  
Anatolian Communications in Nonlinear Analysis, Bolu, Türkiye, 3 - 06 Temmuz 2013
- XXIV. **Eigenvalues for Iterative Systems of Nonlinear m point Boundary Value Problems on Time Scales**  
KARACA İ., FEN F.  
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Türkiye, 2 - 05 Haziran 2013
- XXV. **Existence of Positive Solutions for p Laplacian Impulsive Boundary Value Problems on Time Scales**

- FEN F., KARACA İ.  
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Türkiye, 2 - 05 Haziran 2013
- XXVI. **Positive Solutions For Second Order Impulsive Boundary Value Problems on Time Scales**  
FEN F., KARACA İ.  
The 11th International Workshop on Dynamical Systems and Applications, Ankara, Türkiye, 26 - 28 Haziran 2012
- XXVII. **Existence of Symmetric Positive Solutions for m point Boundary Value Problem with Sign Changing Nonlinearity on Time Scales**  
FEN F., KARACA İ.  
International Conference on Applied Analysis and Algebra 2012, İstanbul, Türkiye, 20 - 24 Haziran 2012
- XXVIII. **Triple positive solutions of m point time scale BVPs with p Laplacian on infinite intervals**  
KARACA İ., FEN F.  
Sixth International Conference on Dynamic Systems and Applications, Atlanta, Amerika Birleşik Devletleri, 25 - 28 Mayıs 2011, cilt.6, ss.205-212

## Metrikler

Yayın: 75  
Atıf (WoS): 97  
Atıf (Scopus): 139  
H-İndeks (WoS): 5  
H-İndeks (Scopus): 6

## Akademi Dışı Deneyim

Neuroscience Institute, Georgia State University, Atlanta, Georgia, Amerika Birleşik Devletleri