

## Dr. Öğr. Üyesi ZAFER BEKİRYAZICI

### Kişisel Bilgiler

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Posta Adresi: RTE Üniversitesi Fen Edebiyat Fakültesi Merkez/Rize

### Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: AAQ-7932-2020

ScopusID: 56191618000

Yoksis Araştırmacı ID: 193125

### Eğitim Bilgileri

Doktora, Karadeniz Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, Türkiye 2014 - 2017

Yüksek Lisans, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Matematik Mühendisliği, Türkiye 2009 - 2012

Lisans, Marmara Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, Türkiye 2005 - 2009

### Sertifika, Kurs ve Eğitimler

Mesleki Eğitim, Erasmus Staff Teaching Mobility, Università degli Studi del Sannio, 2023

Mesleki Eğitim, Latex ile Döküman Hazırlama Kursu, Amasya Üniversitesi, 2022

Mesleki Eğitim, Erasmus Staff Training Mobility, Technische Universität Darmstadt, 2017

Mesleki Eğitim, Doğa Bilimlerinde Akademik Düzeyde Araştırma Projesi Hazırlama Eğitimi, Karadeniz Teknik Üniversitesi, 2015

Mesleki Eğitim, Erasmus Staff Training Mobility, Lorentz Center, 2014

### Yaptığı Tezler

Doktora, Bazı Kompartmanlı Modellerin Rastgele Etkiler Altında İncelenmesi, Karadeniz Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 2017

Yüksek Lisans, Lineer Operatör Denklemler İçin Temel Çözüm ve Uygulamaları, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Matematik Mühendisliği, 2012

### Araştırma Alanları

Matematik, Diferansiyel denklemler, İstatistik, Olasılık Kuramı, Stokastik Süreçler, Sayısal Analiz, Temel Bilimler

### Akademik Unvanlar / Görevler

Dr. Öğr. Üyesi, Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2019 - Devam Ediyor  
Araştırma Görevlisi Dr., Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2017 - 2019  
Araştırma Görevlisi, Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2010 - 2017

## Akademik İdari Deneyim

Enstitü Müdür Yardımcısı, Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2024 - Devam Ediyor

Bölüm Akademik Teşvik Değerlendirme Komisyonu Üyesi, Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2023 - Devam Ediyor

Erasmus Bölüm Koordinatörü, Recep Tayyip Erdoğan Üniversitesi, Fen Edebiyat Fakültesi, Matematik Bölümü, 2013 - 2023

## Verdiği Dersler

Matematik, Ön Lisans, 2024 - 2025, 2023 - 2024

Mesleki İngilizce - II, Lisans, 2023 - 2024, 2020 - 2021

Stokastik Diferansiyel Denklemler, Yüksek Lisans, 2023 - 2024, 2021 - 2022, 2020 - 2021

Probability and Statistics, Lisans, 2023 - 2024, 2022 - 2023, 2021 - 2022

Olasılık, Lisans, 2024 - 2025, 2022 - 2023, 2021 - 2022

Sayısal Analiz, Lisans, 2023 - 2024, 2022 - 2023, 2021 - 2022

İleri İstatistik, Yüksek Lisans, 2024 - 2025, 2022 - 2023, 2021 - 2022, 2020 - 2021

Diferansiyel Denklemlerin Sayısal Çözüm Yöntemleri, Lisans, 2023 - 2024, 2021 - 2022, 2020 - 2021, 2019 - 2020

Diferansiyel Denklemler, Lisans, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Differential Equations, Lisans, 2021 - 2022

Uygulamalı Mühendislik Matematiği, Lisans, 2020 - 2021

İstatistik, Lisans, 2020 - 2021, 2019 - 2020, 2017 - 2018

Matematik-II, Ön Lisans, 2019 - 2020

Mühendislik Matematiği - II, Lisans, 2019 - 2020

Mesleki İngilizce - I, Lisans, 2019 - 2020

Mühendislik Matematiği - I, Lisans, 2019 - 2020

## Yönetilen Tezler

Bekiryazıcı Z., Bir COVID-19 yayılımı modelinin stokastik davranışlarının incelenmesi, Yüksek Lisans, A.ÖNEN(Öğrenci), 2023

Bekiryazıcı Z., El, Ayak, Ağız Hastalığı Modelinin Rastgele Koşullarda İncelenmesi, Yüksek Lisans, S.HAŞİMOĞLU(Öğrenci), 2022

## Jüri Üyelikleri

Tez Savunma (Yüksek Lisans), Tez Savunma (Yüksek Lisans), Recep Tayyip Erdoğan Üniversitesi, Ağustos, 2021

Doktora Yeterlik Sınavı, Doktora Yeterlik Sınavı, Gümüşhane Üniversitesi, Ocak, 2020

Tez Savunma (Yüksek Lisans), Tez Savunma (Yüksek Lisans), Gümüşhane Üniversitesi, Ocak, 2020

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

- I. **Sensitivity Analysis and Random Dynamics for a Mathematical Model of Tuberculosis Transmission**  
Bekiryazıcı Z.  
COMMUNICATIONS IN STATISTICS PART B: SIMULATION AND COMPUTATION, cilt.53, sa.12, ss.6009-6021, 2024 (SCI-Expanded)
- II. **Utilizing fractional derivatives and sensitivity analysis in a random framework: a model-based approach to the investigation of random dynamics of malware spread**  
Bekiryazıcı Z.  
BOUNDARY VALUE PROBLEMS, cilt.2024, sa.1, 2024 (SCI-Expanded)
- III. **Approximate Solutions of Fractional Differential Equations Using Optimal q-Homotopy Analysis Method: A Case Study of Abel Differential Equations**  
Sengül S., Bekiryazıcı Z., Merdan M.  
FRACTAL AND FRACTIONAL, cilt.8, sa.9, ss.533, 2024 (SCI-Expanded)
- IV. **A modification of approximate random characteristics for a model of Zika virus transmission**  
Bekiryazıcı Z., Kesemen T., Merdan M., Khaniyev T.  
THERMAL SCIENCE, cilt.26, sa.4A, ss.3067-3077, 2022 (SCI-Expanded)
- V. **Modification of the random differential transformation method and its applications to compartmental models**  
Bekiryazıcı Z., Merdan M., Kesemen T.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, cilt.50, sa.18, ss.4271-4292, 2021 (SCI-Expanded)
- VI. **WONG-ZAKAI METHOD FOR STOCHASTIC DIFFERENTIAL EQUATIONS IN ENGINEERING**  
Şengül S., Bekiryazıcı Z., Merdan M.  
THERMAL SCIENCE, cilt.25, 2021 (SCI-Expanded)
- VII. **Modelling of cohesive –sediment depositional areas carried by the Solaklı River to the eastern Black-Sea**  
Yazır D., Ünver İ., Köse E., Bekiryazıcı Z.  
Indian Journal of Geo-Marine Sciences, cilt.47, sa.3, ss.721-728, 2018 (SCI-Expanded)
- VIII. **Deterministic stability and random behavior of a Hepatitis C model**  
Merdan M., Bekiryazıcı Z., Kesemen T., Khanlyev T.  
PLOS ONE, cilt.12, sa.7, 2017 (SCI-Expanded)
- IX. **Comparison of stochastic and random models for bacterial resistance**  
Merdan M., Bekiryazıcı Z., Kesemen T., Khaniyev T.  
ADVANCES IN DIFFERENCE EQUATIONS, 2017 (SCI-Expanded)

## **Diğer Dergilerde Yayınlanan Makaleler**

- I. **Analyzing the stochastic dynamics of COVID-19 waves in Turkey using real data and piecewise sinusoidal functions**  
Bekiryazıcı Z., Önen A.  
INTERNATIONAL JOURNAL OF DYNAMICS AND CONTROL, cilt.12, sa.8, ss.2830-2841, 2024 (Scopus)
- II. **Wong-Zakai approximation for stochastic models of smoking**  
Şengül S., Bekiryazıcı Z., Merdan M.  
Sigma Journal of Engineering and Natural Sciences, cilt.41, sa.5, ss.958-968, 2023 (ESCI)
- III. **MODELING DISEASE TRANSMISSION DYNAMICS WITH RANDOM DATA AND HEAVY TAILED RANDOM EFFECTS: THE ZIKA CASE**  
Bekiryazıcı Z., Kesemen T., Merdan M., Khaniyev T.  
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, cilt.13, sa.4, ss.1272-1286, 2023 (ESCI)
- IV. **Transmission of Cholera Disease with Laplacian and Triangular Parameters**  
Merdan M., Bekiryazıcı Z., Kesemen T., Khaniyev T.  
IRANIAN JOURNAL OF MATHEMATICAL SCIENCES AND INFORMATICS, cilt.17, sa.2, ss.289-305, 2022 (ESCI)
- V. **GENERALIZED OSCULATING CURVES OF TYPE (n-3) IN THE n-DIMENSIONAL EUCLIDEAN SPACE**

Bektas O., Bekiryazıcı Z.

COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, cilt.71, sa.1, ss.212-225, 2022 (ESCI)

- VI. **Comparison of a random model of Hand-Foot-Mouth Disease model with Gaussian and Laplacian parameters**  
Bekiryazıcı Z., Hasimoglu S.  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, cilt.12, sa.1, ss.200-210, 2022 (Hakemli Dergi)
- VII. **THE PERFORMANCE OF WONG-ZAKAI APPROXIMATIONS FOR THE INVESTIGATION OF STOCHASTIC DIFFERENTIAL EQUATION MODELS WITH NONLINEAR MULTIPLICATIVE NOISE**  
Şengül S., Bekiryazıcı Z., Merdan M.  
ACTA MATHEMATICA UNIVERSITATIS COMENIANAE, cilt.90, sa.2, ss.231-243, 2021 (ESCI)
- VIII. **Analysis of The Dynamics of The Classical Epidemic Model with Beta Distributed Random Components**  
Kesemen T., Merdan M., Bekiryazıcı Z.  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, cilt.10, sa.3, ss.1956-1965, 2020 (Hakemli Dergi)
- IX. **Investigation of the Behaviour of Volterra Integral Equations with Random Effects**  
Merdan M., Altay Ö., Bekiryazıcı Z.  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, cilt.10, sa.1, ss.205-216, 2020 (Hakemli Dergi)
- X. **Investigation of Random and Stochastic Models for CD8 T Cell Immune Response**  
Merdan M., Bekiryazıcı Z., Kesemen T., Anac H.  
Journal of Abstract and Computational Mathematics, cilt.4, ss.37-48, 2019 (Hakemli Dergi)
- XI. **Solving of Some Random Partial Differential Equations by Using Differential Transformation Method and Laplace- Padé Method**  
Merdan M., Anaç H., Bekiryazıcı Z., Kesemen T.  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, cilt.9, sa.1, ss.108-118, 2019 (Hakemli Dergi)
- XII. **Analysis of a Random Zeeman Heartbeat Model with Differential Transformation Method**  
Oral P., Merdan M., Bekiryazıcı Z.  
Cumhuriyet Science Journal, cilt.40, sa.2, ss.285-298, 2019 (Hakemli Dergi)
- XIII. **GLOBAL STABILITY IN A PATHOGEN-SPECIFIC CD8 IMMUNE RESPONSE PREDICTION MODEL**  
Anac H., Merdan M., Bekiryazıcı Z.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, cilt.10, sa.3, ss.325-342, 2019 (ESCI)
- XIV. **Local Fractional Derivative Operators Method for Solving Nonlinear Gas Dynamic Equation of Fractional Order**  
Merdan M., Bekiryazıcı Z.  
INTERNATIONAL JOURNAL OF PURE AND APPLIED MATHEMATICS, cilt.119, ss.501-517, 2018 (Hakemli Dergi)
- XV. **Investigation of Zeeman Models with Time Delays**  
Oral P., Merdan M., Bekiryazıcı Z.  
Journal of Advances in Mathematics and Computer Science, cilt.26, sa.6, ss.1-15, 2018 (Hakemli Dergi)
- XVI. **ANALYZING THE DYNAMICS OF EBOLA TRANSMISSION WITH RANDOM EFFECTS**  
Merdan M., Bekiryazıcı Z., Kesemen T., Khaniyev T.  
COMMUNICATIONS IN MATHEMATICAL BIOLOGY AND NEUROSCIENCE, 2018 (ESCI)
- XVII. **Stochastic and random models of Malaria Disease with vertical transmission**  
Bekiryazıcı Z., Kesemen T., Merdan M.  
New Trends in Mathematical Sciences, cilt.1, sa.5, ss.269-277, 2017 (Hakemli Dergi)
- XVIII. **Mathematical Modeling of Biochemical Reactions Under Random Effects**  
Bekiryazıcı Z., Merdan M., Kesemen T., Khaniyev T.  
Turkish Journal of Mathematics and Computer Science, cilt.5, ss.8-18, 2016 (Hakemli Dergi)
- XIX. **Mathematical Modeling of Dengue Disease under Random Effects**  
Bekiryazıcı Z., Merdan M., Kesemen T., Najmuldeen M.  
Mathematical Sciences and Applications E-Notes, cilt.4, sa.2, ss.72-84, 2016 (Hakemli Dergi)

- XX. **A psychometric scale for determining university students' attitudes towards the statistics courses they take: Statistical attitude scale (SAS)**  
Tunc T., Komitoglu F., Bekiryazıcı Z.  
Energy Education Science & Technology, Part B: Social and Educational Studies, cilt.6, ss.15-24, 2014 (Scopus)

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

- I. **The Congruity of Solutions from Stochastic and Random Models in the Analysis of Deterministic Systems with Uncertainty**  
Bekiryazıcı Z.  
10th International IFS and Contemporary Mathematics and Engineering Conference, Mersin, Türkiye, 4 - 07 Eylül 2024, ss.45
- II. **A New Study on a Random Conformable Fractional System Modeling Acid-Mediated Tumor Cell Invasion**  
Meral G., Yazır T., Bekiryazıcı Z., Anaç H.  
8th Approximation Theory and Special Functions (ATSF 2024) Conference,, Ankara, Türkiye, 4 - 07 Eylül 2024, ss.172
- III. **Average Solutions of Differential Equations Containing Fractional Derivatives of Orders Governed by Probability Distributions with Bounded Support**  
Bekiryazıcı Z.  
12th International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Türkiye, 19 - 23 Temmuz 2024, ss.84
- IV. **An Investigation of Pest Management Dynamics for Tea Plant in Turkey using Stochastic Models**  
Bekiryazıcı Z.  
6th International Conference on Research in Applied Mathematics and Computer Science, Marrakush, Fas, 25 - 27 Nisan 2024, ss.312
- V. **Analyzing Compartmental Models of Disease Transmission with Fractional Derivatives and Randomized Parameters: An Approach Based on Simulations**  
Bekiryazıcı Z.  
7th International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, İstanbul, Türkiye, 11 - 13 Temmuz 2023, ss.212
- VI. **The Effects of Randomized Initial Values on the Dynamics of Disease Transmission in Fractional-Random Compartmental Models**  
Bekiryazıcı Z.  
7th International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, İstanbul, Türkiye, 11 - 13 Temmuz 2023, ss.489-498
- VII. **Analysis of COVID-19 Dynamics in Turkey using Sinusoidal Transmission Rates and Stochastic Differential Equations**  
Bekiryazıcı Z.  
2nd International E-Conference on Mathematical and Statistical Science: A Selcuk Meeting, Konya, Türkiye, 5 - 07 Haziran 2023, ss.54
- VIII. **Investigation of the Most Appropriate Plant Selections for Parking Areas in Urban Areas with Multi-Criteria Decision-Making Methods**  
Bekiryazıcı F., Köseoğlu A., Bekiryazıcı Z.  
8th International Asian Congress on Contemporary Sciences, Aksaray, Türkiye, 5 - 07 Mayıs 2023, ss.317
- IX. **Investigation of COVID-19 Dynamics in Turkey with Real Data and Stochastic Simulations**  
Bekiryazıcı Z.  
5th International Conference on Research in Applied Mathematics and Computer Science, Casablanca, Fas, 16 - 18 Mart 2023, ss.307
- X. **Investigation of Simulation Based Stochastic and Random Characteristics of the FitzHugh-Nagumo**

## **Model**

Bekiryazıcı Z.

4th International Conference on Applied Engineering and Natural Sciences, Konya, Türkiye, 10 - 13 Kasım 2022, ss.1260-1265

- XI. **Investigation of Fractional Order Genesio-Tesi System Using Laplace Transformation**  
Bekiryazıcı Z., Şengül S., Merdan M.  
8th International IFS and Contemporary Mathematics Conference, Mersin, Türkiye, 16 - 19 Haziran 2022, ss.18-19
- XII. **Stochastic Dynamics of the Novel Coronavirus Transmission Considering Asymptomatic Cases**  
Bekiryazıcı Z., Önen A.  
8th International IFS and Contemporary Mathematics Conference, Mersin, Türkiye, 16 - 19 Haziran 2022, ss.20-21
- XIII. **Comparison of HFMD Transmission Dynamics under Gaussian and Laplacian Random Effects**  
Bekiryazıcı Z., Haşimoğlu S.  
International Online Conferences on Engineering and Natural Sciences, Gümüşhane, Türkiye, 5 - 07 Temmuz 2021, ss.211
- XIV. **Gender Based Transmission Dynamics of Zika Virus with Random Effects**  
Bekiryazıcı Z., Kesemen T., Merdan M., Khaniev T.  
International Online Conferences on Engineering and Natural Sciences, Gümüşhane, Türkiye, 5 - 07 Temmuz 2021, ss.212
- XV. **A new type of osculating curve in  $E_n$**   
Bektaş Ö., Bekiryazıcı Z.  
18. Uluslararası Geometri Sempozyumu, Malatya, Türkiye, 12 - 13 Temmuz 2021, ss.81
- XVI. **Investigation of Random Zika Virus Transmission with Modified Random Differential Transformation Method**  
Bekiryazıcı Z., Kesemen T., Merdan M., Hanlioğlu T.  
9th International Eurasian Conference on Mathematical Sciences and Applications, Skopje, Makedonya, 25 - 28 Ağustos 2020, ss.114-115
- XVII. **Modelling Disease Transmission Scenarios Using Field Data and Heavy Tailed Random Effects: The Zika Case**  
BEKİRYAZICI Z., Kesemen T., Merdan M., Khaniev T.  
11th International Statistics Congress, Muğla, Türkiye, 4 - 08 Ekim 2019, ss.91
- XVIII. **Stochastic Investigation of a Crop Pest Management Model with Awareness**  
BEKİRYAZICI Z.  
3rd International Conference on Advanced Engineering Technologies, Bayburt, Türkiye, 19 - 21 Eylül 2019, ss.374-378
- XIX. **Mathematical Modelling of the Random Spread of Malware under Mutation Using Random Differential Equations**  
BEKİRYAZICI Z.  
3rd International Conference on Advanced Engineering Technologies, Bayburt, Türkiye, 19 - 21 Eylül 2019, ss.223-229
- XX. **Global Stability in a Predicting Pathogen-Specific CD8 Cell Immune Responses from a Modelling Approach**  
BEKİRYAZICI Z., Anac H., Merdan M.  
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Türkiye, 10 - 13 Mart 2019, ss.221
- XXI. **Analysis of a Pneumonia Transmission Model with Random Components**  
BEKİRYAZICI Z., Kesemen T., Merdan M.  
5th International Conference on Recent Advances In Pure And Applied Mathematics, Trabzon, Türkiye, 23 - 27 Temmuz 2018, ss.39-40
- XXII. **A Fractional Random Model for Influenza Transmission**  
Merdan M., BEKİRYAZICI Z.  
International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, İstanbul, Türkiye, 3 - 06

Temmuz 2018, ss.412

- XXIII. **An Epidemiological Model with Caputo Fractional Derivative and Normally Distributed Random Components**  
Merdan M., BEKİRYAZICI Z.  
International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, İstanbul, Türkiye, 3 - 06 Temmuz 2018, ss.413
- XXIV. **A Comparison of Variation Coefficients of Biochemical Reaction Model for Several Probability Distributions**  
Kesemen T., BEKİRYAZICI Z., Khaniyev T., Karaarslan G.  
International Conference on Mathematics and Mathematics Education, Ordu, Türkiye, 27 - 29 Haziran 2018, ss.745-746
- XXV. **Behaviours of Random Effected Volterra and Fredholm Integral Equation**  
Merdan M., Altay Ö., BEKİRYAZICI Z.  
International Conference on Mathematics and Mathematics Education, Ordu, Türkiye, 27 - 29 Haziran 2018, ss.259-260
- XXVI. **Investigation of A Model For Polio By Using Random Differential Equations and Parameters with Gaussian Distribution**  
BEKİRYAZICI Z., Kesemen T., Merdan M.  
International Conference on Mathematics and Mathematics Education, Ordu, Türkiye, 27 - 29 Haziran 2018, ss.785-786
- XXVII. **Generalized Beta Parameters for a SVEIR-Type Random Model of Polio Transmission**  
Bekiryazici Z., Merdan M., Kesemen T.  
7th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA), Kyiv, Ukrayna, 28 - 31 Ağustos 2018, cilt.2037
- XXVIII. **Investigation of the moments for a random model of cholera disease**  
Merdan M., Kesemen T., BEKİRYAZICI Z.  
International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Türkiye, 3 - 07 Temmuz 2017, ss.253
- XXIX. **Stochastic Zeeman Heartbeat Models with Two and Three Dimensions**  
Merdan M., BEKİRYAZICI Z., Oral P.  
II. International Symposium on Multidisciplinary Studies, Roma, İtalya, 18 - 21 Mayıs 2017, cilt.1, ss.97-107
- XXX. **Analysis of Random Two and Three Dimensional Zeeman Modeling**  
Merdan M., Oral P., BEKİRYAZICI Z.  
II. International Symposium on Multidisciplinary Studies, Roma, İtalya, 18 - 21 Mayıs 2017, cilt.1, ss.83-96
- XXXI. **Investigation of Zeeman Models with Time Delays**  
Oral P., Merdan M., BEKİRYAZICI Z.  
II. International Symposium on Multidisciplinary Studies, Roma, İtalya, 18 - 21 Mayıs 2017, ss.101
- XXXII. **Application of Differential Transformation Method for Solving Some Random Partial Differential Equations**  
Merdan M., Kesemen T., Anac H., BEKİRYAZICI Z.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Türkiye, 11 - 13 Mayıs 2017, ss.430-431
- XXXIII. **Analysis of Random Zeeman Heartbeat Model by Modified Differential Transformation Method**  
Oral P., Merdan M., BEKİRYAZICI Z.  
International Conference on Mathematics and Mathematics Education, Şanlıurfa, Türkiye, 11 - 13 Mayıs 2017, ss.428-429
- XXXIV. **Moments of Epidemic Models with Random Initial Data**  
BEKİRYAZICI Z., Merdan M., Kesemen T.  
International Conference on Mathematics and Engineering, İstanbul, Türkiye, 10 - 12 Mayıs 2017, ss.360
- XXXV. **Analyzing the Moments of the Classical Epidemic Model under Random Effects**  
Merdan M., BEKİRYAZICI Z., Kesemen T.

- International Conference on Mathematics and Engineering, İstanbul, Türkiye, 10 - 12 Mayıs 2017, ss.343
- XXXVI. **Analysing the Early-Stage Dynamics of a Model for Ebola Virus Under Random Effects**  
Merdan M., BEKİRYAZICI Z., Kesemen T.  
International Workshop on Mathematical Methods in Engineering, Ankara, Türkiye, 27 - 29 Nisan 2017, ss.51
- XXXVII. **Analyzing Mathematical Models of Various Diseases under Random Conditions**  
BEKİRYAZICI Z.  
Probability in mathematics and physics, Darmstadt, Almanya, 27 - 31 Mart 2017, ss.14
- XXXVIII. **Stochastic Modeling of Immune-Mediated Disorder in Inflammatory Bowel Disease**  
Merdan M., BEKİRYAZICI Z., Kesemen T., Khaniyev T.  
1st International Mediterranean Science and Engineering Congress, Adana, Türkiye, 26 - 28 Ekim 2016, ss.3092
- XXXIX. **Some Statistical Characteristics of the Biochemical Reaction Model under Triangular Random Effects**  
BEKİRYAZICI Z., Kesemen T., Merdan M., BEKTAŞ KAMIŞLIK A.  
Xth International Statistics Days Conference, Giresun, Türkiye, 7 - 09 Ekim 2016, ss.354-360
- XL. **Stochastic and Random Behavior Model for Immune System Response and Bacterial Resistance with Antibiotic Therapy**  
BEKİRYAZICI Z., Merdan M., Khaniyev T., Kesemen T.  
5th International Eurasian Conference on Mathematical Sciences and Applications, Belgrad, Sırbistan Ve Karadağ, 16 - 19 Ağustos 2016, ss.128-129
- XLI. **Modelling of Dengue Disease under Laplacian Random Effects**  
BEKİRYAZICI Z., Kesemen T., Merdan M., Najmuldeen M.  
International Conference on Mathematics and Mathematics Education, Elazığ, Türkiye, 12 - 14 Mayıs 2016, ss.142-143
- XLII. **Random Modelling of Biochemical Reactions under Gaussian Random Effects**  
BEKİRYAZICI Z., Merdan M., Kesemen T., Khaniyev T.  
International Conference on Mathematics and Mathematics Education, Elazığ, Türkiye, 12 - 14 Mayıs 2016, ss.192-193
- XLIII. **Stochastic and deterministic stability of models for hepatitis C**  
Merdan M., Bekiryazici Z., Kesemen T.  
7th International Conference on Mathematical Analysis, Differential Equations and their Applications, Baku, Azerbaycan, 8 - 13 Eylül 2015, ss.114

## Desteklenen Projeler

BEKİRYAZICI Z., KESEMEN T., MERDAN M., HANALIOĞLU T., Yükseköğretim Kurumları Destekli Proje, Zika Virüsü Yayılımının Matematiksel Modelinin Rastgele Koşullarda Analizi, 2019 - 2021

Bekiryazıcı Z., Kesemen T., Merdan M., Bektaş Kamışlık A., Oral P., Yükseköğretim Kurumları Destekli Proje, Biyokimyasal Reaksiyon Modelinin Deterministik and Stokastik Kararlılık Analizi, 2016 - 2019

Bekiryazıcı Z., Merdan M., Karakullukçu A., Anaç H., Yükseköğretim Kurumları Destekli Proje, Bağışıklık sisteminin CD8 T hücreleri ile tepkisinin matematik modelinin kararlılığı ve rastgele davranışları, 2017 - 2018

## Bilimsel Kuruluşlardaki Üyelikler / Görevler

Society for Industrial and Applied Mathematics, Üye, 2019 - Devam Ediyor , Amerika Birleşik Devletleri

Matematikçiler Derneği, Üye, 2016 - Devam Ediyor , Türkiye

## Bilimsel Hakemlikler

International Journal of Dynamics and Control, ESCI Kapsamındaki Dergi, Aralık 2024



MATHEMATICAL AND COMPUTER MODELLING OF DYNAMICAL SYSTEMS, SCI-E Kapsamındaki Dergi, Aralık 2023  
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI-E Kapsamındaki Dergi, Ocak 2023  
QUALITATIVE THEORY OF DYNAMICAL SYSTEMS, SCI-E Kapsamındaki Dergi, Eylül 2022  
INTERNATIONAL JOURNAL OF BIOMATHEMATICS, SCI-E Kapsamındaki Dergi, Mayıs 2022  
JOURNAL OF COMPUTATIONAL BIOLOGY, SCI-E Kapsamındaki Dergi, Ekim 2021  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, ESCI Kapsamındaki Dergi, Haziran 2021  
International Journal of Nonlinear Analysis and Applications, ESCI Kapsamındaki Dergi, Haziran 2021  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, ESCI Kapsamındaki Dergi, Ekim 2020  
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI-E Kapsamındaki Dergi, Ekim 2020  
MATHEMATICAL MODELLING OF NATURAL PHENOMENA, SCI-E Kapsamındaki Dergi, Ağustos 2020  
ADVANCES IN DIFFERENCE EQUATIONS, SCI-E Kapsamındaki Dergi, Mayıs 2020  
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, Diğer İndekslerce Taranan Dergi, Nisan 2020  
JOURNAL OF APPLIED PROBABILITY AND STATISTICS, Diğer İndekslerce Taranan Dergi, Nisan 2020  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, ESCI Kapsamındaki Dergi, Nisan 2020  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Diğer İndekslerce Taranan Dergi, Temmuz 2019  
INTERNATIONAL JOURNAL OF BIOMATHEMATICS, SCI-E Kapsamındaki Dergi, Ekim 2018  
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Diğer İndekslerce Taranan Dergi, Mart 2018  
INTERNATIONAL JOURNAL OF BIOMATHEMATICS, SCI-E Kapsamındaki Dergi, Ocak 2018

## Bilimsel Araştırma / Çalışma Grubu Üyelikleri

Computational Techniques For Tabletop Games Heritage (European Cooperation In Science And Technology (Cost) Action - Ca22145), Université Catholique de Louvain, Belgium, <https://gametable.network/index.html>, 2024 - Devam Ediyor

## Metrikler

Yayın: 72  
Atf (WoS): 40  
Atf (Scopus): 48  
H-İndeks (WoS): 3  
H-İndeks (Scopus): 3

## Kongre ve Sempozyum Katılımı Faaliyetleri

12th International Conference on Applied Analysis and Mathematical Modeling, Katılımcı, İstanbul, Türkiye, 2024  
6th International Conference on Research in Applied Mathematics and Computer Science, Katılımcı, Marrakush, Fas, 2024  
7th International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, Oturum Başkanı, İstanbul, Türkiye, 2023  
2nd International E-Conference on Mathematical and Statistical Science: A Selcuk Meeting, Katılımcı, Konya, Türkiye, 2023  
5th International Conference on Research in Applied Mathematics and Computer Science, Katılımcı, Casablanca, Fas, 2023  
4th International Conference on Applied Engineering and Natural Sciences, Katılımcı, Konya, Türkiye, 2022  
8th International IFS and Contemporary Mathematics Conference, Katılımcı, Mersin, Türkiye, 2022  
International Online Conferences on Engineering and Natural Sciences, Katılımcı, Gümüşhane, Türkiye, 2021  
9th International Eurasian Conference on Mathematical Sciences and Applications, Katılımcı, Skopje, Makedonya, 2020

11th International Statistics Congress, Katılımcı, Muğla, Türkiye, 2019  
3rd International Conference on Advanced Engineering Technologies, Katılımcı, Bayburt, Türkiye, 2019  
7th International Eurasian Conference on Mathematical Sciences and Applications, Katılımcı, Kyyiv, Ukrayna, 2018  
International Conference on Mathematics: An Istanbul Meeting for World Mathematicians, Katılımcı, İstanbul, Türkiye, 2018  
International Conference on Mathematics and Mathematics Education, Katılımcı, Ordu, Türkiye, 2018  
International Conference on Applied Analysis and Mathematical Modeling, Katılımcı, İstanbul, Türkiye, 2017  
International Conference on Mathematics and Engineering, Katılımcı, İstanbul, Türkiye, 2017  
International Workshop on Mathematical Methods in Engineering, Katılımcı, Ankara, Türkiye, 2017  
Spring School: Probability in Mathematics and Physics, Katılımcı, Darmstadt, Almanya, 2017  
1st International Mediterranean Science and Engineering Congress, Katılımcı, Adana, Türkiye, 2016  
10th International Statistics Days Conference, Katılımcı, Giresun, Türkiye, 2016  
5th International Eurasian Conference on Mathematical Sciences and Applications, Katılımcı, Belgrade, Srbistan, 2016  
International Conference on Mathematics and Mathematics Education, Katılımcı, Elazığ, Türkiye, 2016  
7th International Conference of Mathematical Analysis, Differential Equations and their Applications, Katılımcı, Baku, Azerbaycan, 2015  
Statistical Inference for Levy Processes, Katılımcı, Leiden, Hollanda, 2014