

# **Prof. ZAFER KÜÇÜK**

## **Personal Information**

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**Address:** Karadeniz Teknik Üniversitesi Fen Fakültesi İstatistik ve Bilgisayar Bilimleri Bölümü 61080 Trabzon

## **International Researcher IDs**

ORCID: 0000-0001-8083-2429

Yoksis Researcher ID: 151959

## **Education Information**

Doctorate, Karadeniz Technical University, -, Matematik, Turkey 1997 - 2003

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, İstatistik, Turkey 1994 - 1997

Undergraduate, Ankara University, Fen Fakültesi, İstatistik, Turkey 1990 - 1994

## **Foreign Languages**

English, B1 Intermediate

## **Dissertations**

Doctorate, İki bariyerli yarı-Markov rasgele yürüyüş süreçlerinin asimptotik yöntemlerle incelenmesi üzerine, Karadeniz Technical University, Fen Bilimleri, Matematik, 2003

Postgraduate, Yarı-Markov süreçleri üzerine bir çalışma, Ankara University, Fen Bilimleri Enstitüsü, İstatistik, 1997

## **Research Areas**

Statistics, Statistical Analysis and Applications, Natural Sciences

## **Academic Titles / Tasks**

Professor, Karadeniz Technical University, Fen Fakültesi, İstatistik ve Bilgisayar Bilimleri, 2018 - Continues

Associate Professor, Karadeniz Technical University, Fen Fakültesi, İstatistik ve Bilgisayar Bilimleri, 2011 - 2018

Assistant Professor, Karadeniz Technical University, Fen Fakültesi, İstatistik ve Bilgisayar Bilimleri, 2004 - 2011

Research Assistant PhD, Karadeniz Technical University, Fen Fakültesi, İstatistik ve Bilgisayar Bilimleri, 2003 - 2004

Research Assistant, Karadeniz Technical University, Fen Fakültesi, İstatistik ve Bilgisayar Bilimleri, 1996 - 2003

## **Courses**

Olasılık teorisi, Undergraduate, 2014 - 2015

Olasılığa giriş, Undergraduate, 2014 - 2015

Matematiksel İstatistik, Undergraduate, 2014 - 2015

## Advising Theses

- KÜÇÜK Z., Özel bariyerli yarı-markov rastgele yürüyüş süreci üzerine bir çalışma, Postgraduate, B.Hasançebi(Student), 2013
- KÜÇÜK Z., Martingaller üzerine bir çalışma, Postgraduate, M.cAN(Student), 2012
- KÜÇÜK Z., Rastgele yürüyüş süreçleri ve bazı uygulamaları, Postgraduate, F.Zehra(Student), 2011
- KÜÇÜK Z., Zaman serilerinde kointegrayon ve yapısal kırılma analizleri üzerine bazı uygulamalar, Postgraduate, F.GÜL(Student), 2011

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

- I. **Madde Güçlü İndeksi ve Madde Ayırt Edicilik İndeksine Dayalı Çeldirici Analizi**  
Hasançebi B., TERZİ Y., KÜÇÜK Z.  
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.10, no.1, pp.224-240, 2020 (AHCI)
- II. **Three-term asymptotic expansion: A semi-Markovian random walk with a generalized beta distributed interference of chance**  
Kesemen T., KÜÇÜK Z., Khaniyev T., Öcal C.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.46, no.3, pp.1445-1455, 2017 (SCI-Expanded)
- III. **Three-term asymptotic expansions for the moments of the random walk with triangular distributed interference of chance**  
ALIYEV R., KÜÇÜK Z., Khaniyev T.  
APPLIED MATHEMATICAL MODELLING, vol.34, no.11, pp.3599-3607, 2010 (SCI-Expanded)
- IV. **Asymptotic expansions for the moments of the Gaussian random walk with two barriers**  
KHANIYEV T., Kucuk Z.  
STATISTICS & PROBABILITY LETTERS, vol.69, no.1, pp.91-103, 2004 (SCI-Expanded)

## Articles Published in Other Journals

- I. **LOJİSTİK REGRESYON MODELİNDE KÖTÜ KALDIRAÇ NOKTALARININ BELİRLENMESİ İÇİN YENİ SAĞLAM EŞİK DEĞERLERİ**  
Gündoğan Aşık E., Altın Yavuz A., Küçük Z.  
MEHMET AKİF ERSOY ÜNİVERSİTESİ İKTİSADİ VE İDARI BİLİMLER FAKÜLTESİ DERGİSİ, vol.8, no.2, pp.830-850, 2021 (ESCI)
- II. **Investigation of Parameter Invariance in Two-Parameter Item Response Theory Model**  
Hasançebi B., Terzi Y., Küçük Z.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.24, no.2, pp.438-444, 2020 (Peer-Reviewed Journal)
- III. **Olasılık Okuryazarlık Testinin Madde Tepki Kuramına Dayalı Yöntemler ile Değişen Madde Fonksiyonu Açısından İncelenmesi**  
Hasançebi B., Terzi Y., KÜÇÜK Z.  
AFYON KOCATEPE ÜNİVERSİTESİ FEN VE MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.19, no.3, pp.643-652, 2019 (Peer-Reviewed Journal)
- IV. **Inventory Model of Type (s,S) With Subexponential Weibull Distrubuted Demand**  
KESEMEN T., Bektaş Kamişlık A., KÜÇÜK Z., Şenol E.  
Journal Of The Turkish Statistical Association, vol.--, no.9, pp.81-92, 2016 (Peer-Reviewed Journal)

- V. **On The Application Of Random Walk With Delay And Pareto Distributed Interference Of Chance To An Insurance Model**  
 KESEMEN T., KÜÇÜK Z., Khaniyev T., YETİM F., Bektaş Kamışlık A.  
 GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.3, pp.615-626, 2016 (ESCI)
- VI. **Asymptotic results for boundary functionals of renewal-reward process with delay and pareto distribution intreference of chance**  
 KÜÇÜK Z., KESEMEN T., Demir Ş., Bektaş Kamışlık A.  
 Journal of Selçuk University Natural and Applied Science, vol.3, no.3, pp.1-12, 2014 (Peer-Reviewed Journal)
- VII. **Aysmptotic results for boundary functionals of renewal-reward process with delay and pareto distribution interference of chance**  
 KESEMEN T., Küçük Z., Demir Ş., Kamişlık Bektaş A.  
 Journal of Selçuk University Natural and Applied Science, vol.3, no.3, pp.1-10, 2014 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **OLASILIK KURAMINDA ÇÖZÜMLÜ PROBLEMLER**  
 HANALİOĞLU T., ÜNVER İ., KÜÇÜK Z., KESEMEN T.  
 NOBEL YAYINEVİ, 2017
- II. **Olasılık**  
 KÜÇÜK Z., ÜNVER İ., Khaniyev T., Yapar C., Nasirova T.  
 Ktü Matbaası, Trabzon, 2011

## Refereed Congress / Symposium Publications in Proceedings

- I. **Distractor Analysis for Statistical Literacy Test**  
 Hasançebi B., Terzi Y., Küçük Z.  
 International Conference on Data Science, MachineLearning and Statistics - 2019 (DMS-2019), Van, Turkey, 26 - 29 June 2019, pp.30
- II. **Parametre değişmezliğinin iki parametreli madde tepki kuramı modelinde incelenmesi**  
 Hasançebi B., TERZİ Y., KÜÇÜK Z.  
 2nd International Symposium on Innovative Approaches in Scientific Studies, Samsun, Turkey, 30 November - 02 December 2018, pp.25
- III. **Compariosn of classical test theory and item response theory in evaluating student and test achievement**  
 Hasançebi B., TERZİ Y., KÜÇÜK Z.  
 19th International Symposium on Economics, Operations Research and Statistics, Antalya, Turkey, 17 - 20 November 2018, pp.875-877
- IV. **Comparison of the Lord'xxs Chi-Square Statistic and Raju'xxs Area Measurements Methods in Determination of the Differential Item Function**  
 Hasançebi B., TERZİ Y., KÜÇÜK Z.  
 10TH INTERNATIONAL STATISTICS CONGRESS, 6 - 08 December 2017
- V. **On the Asymptotic Expansion for the Moments of an Inventory Model of Type (s,S) with Subexponential Demand and Uniform Distributed Interference of Chance**  
 KESEMEN T., Bektaş Kamışlık A., KÜÇÜK Z.  
 5th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2016), Belgrade, Serbia And Montenegro, 16 - 19 August 2016, pp.194-195
- VI. **'Moments of an Inventory Model of Type (s,S) with Heavy Tailed and Infinitely Varying Demands**  
 Bektaş Kamışlık A., KESEMEN T., Khaniyev T., KÜÇÜK Z.  
 Informs Applied Probability Society Conference, İstanbul, Turkey, 5 - 08 July 2015, pp.70

- VII. **Genelleştirilmiş beta müdahaleli yarı-Markov rastgele yürüyüş süreci için asimptotik sonuçlar**  
KESEMEN T., KÜÇÜK Z., Öcal Ç., Khaniyev T.  
8. Uluslararası İstatistik Kongresi, Antalya, Turkey, 27 - 30 October 2013, pp.67-68
- VIII. **Gecikmeli ve pareto müdahaleli ödüllü yenileme sürecinin sınır fonksiyonlarının momentleri için asimptotik açılımlar**  
ÜNVER İ., KÜÇÜK Z., Demir Ş.  
8. Uluslararası İstatistik Kongresi, Antalya, Turkey, 27 - 30 October 2013, pp.72
- IX. **On moments of the semi-Markovian random walk with delay**  
KÜÇÜK Z., ALIYEV R., Hasançebi B.  
2nd International Eurasian Conference on Mathematical Science and Applications, Sarajevo, Bosnia And Herzegovina, 26 - 29 August 2013, pp.345
- X. **On Application of Random Walk with Delay and Pareto Distributed Interference of Chance to an Insurance Model**  
KESEMEN T., KÜÇÜK Z., Khaniyev T., Yetim F., Bektaş Kamişlık A.  
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 2 - 05 June 2013, pp.70
- XI. **weak convergence theorem for random walk with triangular distributed interference of chance**  
KÜÇÜK Z., ALIYEV R., Khaniyev T.  
8th International Symposium of Statistics, Eskişehir, Turkey, 11 - 13 October 2012, pp.265
- XII. **On the semi-Markovian random walk with delay and pareto distributed for an insurance model**  
KESEMEN T., Khaniyev T., Küçük Z.  
8th International Symposium of Statistics, Eskişehir, Turkey, 11 - 13 October 2012, pp.234

## Activities in Scientific Journals

American Journal of Theoretical and Applied Statistics, Committee Member, 2016 - 2018

## Metrics

Publication: 25

Citation (WoS): 22

Citation (Scopus): 26

H-Index (WoS): 2

H-Index (Scopus): 2