

# Prof. ZAFER KÜÇÜK

## Personal Information

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## International Researcher IDs

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## 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, Bilgisayar Bilimleri, 2018 - Continues

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

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

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

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

## Courses

Stokastik Süreçler, Undergraduate, 2016 - 2017

Regresyon Analizi, Undergraduate, 2014 - 2015  
Olasılık teorisi, Undergraduate, 2014 - 2015  
Olasılığa giriş, Undergraduate, 2014 - 2015  
Matematiksel İstatistik, Undergraduate, 2014 - 2015

## Supervised Theses

KÜÇÜK Z., Özel bariyerli yarı-markov rastgele yürüyüş süreci üzerine bir çalışma, Postgraduate, B.Hasancebi(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 kointegrasyon ve yapısal kırılma analizleri üzerine bazı uygulamalar, Postgraduate, F.GÜL(Student), 2011

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

- I. **Madde Güçlük İndeksi ve Madde Ayırt Edicilik İndeksine Dayalı Çeldirici Analizi**  
Hasancebi 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. **Robust methods for detecting bad leverage point in logistic regression**  
Gündoğan Aşık E., Altın Yavuz A., Küçük Z.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.42, no.5, pp.1344-1356, 2024 (ESCI)
- II. **LOJİSTİK REGRESYON MODELİNDE KÖTÜ KALDIRAÇ NOKTALARININ BELİRLENMESİ İÇİN YENİ SAĞLAM EŞİK DEĞERLER**  
Gündoğan Aşık E., Altın Yavuz A., Küçük Z.  
MEHMET AKİF ERSOY ÜNİVERSİTESİ İKTİSADİ VE İDARİ BİLİMLER FAKÜLTESİ DERGİSİ, vol.8, no.2, pp.830-850, 2021 (ESCI)
- III. **Investigation of Parameter Invariance in Two-Parameter Item Response Theory Model**  
Hasancebi B., Terzi Y., Küçük Z.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.24, no.2, pp.438-444, 2020 (Peer-Reviewed Journal)
- IV. **Olasılık Okuryazarlık Testinin Madde Tepki Kuramına Dayalı Yöntemler ile Değişen Madde Fonksiyonu Açısından İncelenmesi**  
Hasancebi B., Terzi Y., KÜÇÜK Z.

AFYON KOCATEPE ÜNİVERSİTESİ FEN VE MÜHENDİSLİK BİLİMLERİ DERGİSİ, vol.19, no.3, pp.643-652, 2019  
(Peer-Reviewed Journal)

- V. **Inventory Model of Type (s,S) With Subexponential Weibull Distrubuted Demand**  
KESEMEN T., Bektaş Kamışlık A., KÜÇÜK Z., Şenol E.  
Journal Of The Turkish Statistical Association, vol.--, no.9, pp.81-92, 2016 (Peer-Reviewed Journal)
- VI. **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., Bektas Kamislik A.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.3, pp.615-626, 2016 (ESCI)
- VII. **Aysmptotic results for boundary functionals of renewal-reward process with delay and pareto distribution interference of chance**  
KESEMEN T., Küçük Z., Demir Ş., Kamışlık Bektaş A.  
Journal of Selçuk University Natural and Applied Science, vol.3, no.3, pp.1-10, 2014 (Peer-Reviewed Journal)
- VIII. **Asymptotic results for boundary functionals of renewal-reward process with delay and pareto distribution intreferece 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)

## 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 parametrelili 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, Sarejeva, Bosnia And Herzegovina, 26 - 29 August 2013, pp.345
- X. **On Application of Random Walk with Delay and Pareto Distributed Interference of Chanceto an Insurance Model**  
KESEMEN T., KÜÇÜK Z., Khaniyev T., Yetim F., Bektaş Kamışlık A.  
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 2 - 05 June 2013, pp.70
- XI. **weak convergence theorem for random 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: 26

Citation (WoS): 23

Citation (Scopus): 27

H-Index (WoS): 2

H-Index (Scopus): 2