

## Assoc. Prof. GÜLESEN ÜSTÜNDAĞ ŞIRAY

### Personal Information

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### Education Information

Doctorate, Cukurova University, Fen Bilimleri Enstitüsü, İstatistik, Turkey 2005 - 2011

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, İstatistik, Turkey 2002 - 2005

Masters (Non-Thesis), Cukurova University, Fen Bilimleri Enstitüsü, Matematik Öğretmenliği, Turkey 2002 - 2003

Undergraduate, Cukurova University, Fen-Edebiyat Fakültesi, Matematik, Turkey 1998 - 2002

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Lineer Tahmin Edicilerin Kabul Edilebilirliği, Cukurova University, Fen Bilimleri Enstitüsü, İstatistik, 2011

Postgraduate, Bazı Parametrik Olmayan İstatistiksel Yöntemlerin İncelenmesi, Cukurova University, Fen Bilimleri Enstitüsü, İstatistik, 2005

### Research Areas

Statistics, Statistical Analysis and Applications, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Cukurova University, Fen Edebiyat Fakültesi, İstatistik, 2015 - Continues

Assistant Professor, Cukurova University, Fen-Edebiyat Fakültesi, İstatistik, 2013 - 2015

Research Assistant PhD, Cukurova University, Fen-Edebiyat Fakültesi, İstatistik, 2011 - 2013

Research Assistant, Cukurova University, Fen-Edebiyat Fakültesi, İstatistik, 2007 - 2011

### Academic and Administrative Experience

Cukurova University, Fen Edebiyat Fakültesi, 2017 - Continues

Cukurova University, Fen-Edebiyat Fakültesi, İstatistik Bölümü, 2013 - 2014

### Advising Theses

Üstündağ Şiray G., Geleneksel regresyon analizi ile yapay sinir ağlarının farklı aktivasyon fonksiyonları kullanılarak

karşılaştırılması, Doctorate, Y.KOÇAK(Student), 2022

Üstündağ Şiray G., Ölçüm Hatalı Modellerde Parametre Tahmini, Postgraduate, C.İNCEKAŞ(Student), 2020

ÜSTÜNDAĞ ŞİRAY G., Diskriminant Analizi ve Bazı Alternatif Regresyon Analizleri, Postgraduate, S.SEVİNDİK(Student), 2018

ÜSTÜNDAĞ ŞİRAY G., Using Genetic Algorithms for order selection in fractional polynomials, Postgraduate, B.NDABASHINZE(Student), 2017

ÜSTÜNDAĞ ŞİRAY G., Lineer Regresyon Modellerinde Ölçüm Hataları, Postgraduate, N.TOTİK(Student), 2016

## Jury Memberships

Doctorate, Doctorate, Çukurova Üniversitesi, June, 2020

Doctorate, Doctorate, Çukurova Üniversitesi, January, 2017

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

- I. **Two-parameter estimation for Tobit model: An application to national health and nutrition examination survey dataset**  
ÖZBAY N., ÜSTÜNDAĞ ŞİRAY G., TOKER KUTAY S., Yenilmez I.  
CONCURRENCY AND COMPUTATION-PRACTICE & EXPERIENCE, 2022 (Journal Indexed in SCI)
- II. **Defining a two-parameter estimator: a mathematical programming evidence**  
ÜSTÜNDAĞ ŞİRAY G., TOKER KUTAY S., ÖZBAY N.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, 2021 (Journal Indexed in SCI)
- III. **New activation functions for single layer feedforward neural network**  
KOÇAK Y., ÜSTÜNDAĞ ŞİRAY G.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.164, 2021 (Journal Indexed in SCI)
- IV. **Tobit Liu estimation of censored regression model: an application to Mroz data and a Monte Carlo simulation study**  
TOKER KUTAY S., ÖZBAY N., ÜSTÜNDAĞ ŞİRAY G., Yenilmez I.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, 2020 (Journal Indexed in SCI)
- V. **Comparing ordinary ridge and generalized ridge regression results obtained using genetic algorithms for ridge parameter selection**  
Ndabashinze B., Siray G.  
COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION, 2020 (Journal Indexed in SCI)
- VI. **Principal components estimator for measurement error models**  
Siray G.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.90, no.6, pp.1022-1038, 2020 (Journal Indexed in SCI)
- VII. **Liu estimation approach to the measurement error models**  
Siray G.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.89, no.18, pp.3453-3496, 2019 (Journal Indexed in SCI)
- VIII. **On the Restricted Liu Estimator in the Logistic Regression Model**  
Siray G. U. , Toker S., KAÇIRANLAR S.  
COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION, vol.44, no.1, pp.217-232, 2015 (Journal Indexed in SCI)
- IX. **r-d Class Estimator Under Misspecification**  
Siray G.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.44, no.22, pp.4742-4756, 2015 (Journal Indexed in SCI)

- X. **r - k Class estimator in the linear regression model with correlated errors**  
Siray G., KAÇIRANLAR S., SAKALLIOĞLU S.  
STATISTICAL PAPERS, vol.55, no.2, pp.393-407, 2014 (Journal Indexed in SCI)
- XI. **Modified and Restricted r-k Class Estimators**  
Siray G.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.43, no.24, pp.5130-5155, 2014 (Journal Indexed in SCI)
- XII. **RESTRICTED TWO PARAMETER RIDGE ESTIMATOR**  
Siray G., Toker S.  
AUSTRALIAN & NEW ZEALAND JOURNAL OF STATISTICS, vol.55, no.4, pp.455-469, 2013 (Journal Indexed in SCI)
- XIII. **Inequality constrained ridge regression estimator**  
Toker S., Siray G., KAÇIRANLAR S.  
STATISTICS & PROBABILITY LETTERS, vol.83, no.10, pp.2391-2398, 2013 (Journal Indexed in SCI)
- XIV. **Superiority of the r-k Class Estimator Over Some Estimators In A Linear Model**  
Siray G., SAKALLIOĞLU S.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.41, no.15, pp.2819-2832, 2012 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **Performance Evaluation of Swish-Based Activation Functions for Multi-Layer Networks**  
Koçak Y., Üstündağ Şiray G.  
Artificial Intelligence Studies (AIS), vol.5, no.1, pp.1-13, 2022 (Refereed Journals of Other Institutions)
- II. **COMPARISONS OF SOME BIASED ESTIMATORS FOR LINEAR MEASUREMENT ERROR MODELS**  
Üstündağ Şiray G., İncekaş C.  
Eskişehir Technical University Journal of Science and Technology A - Applied Sciences and Engineering, vol.21, no.3, pp.421-435, 2020 (International Refereed University Journal)
- III. **Genetic Algorithms Applied to Fractional Polynomials for Power Selection: Application to Diabetes Data**  
Ndabashinze B., ÜSTÜNDAĞ ŞİRAY G., Scrucca L.  
Turkish journal of forecasting, vol.3, no.1, pp.15-25, 2019 (International Refereed University Journal)
- IV. **Comparisons of the generalized Liu and the ordinary Liu estimators to the ordinary least squares estimator under the Pitman's closeness criterion**  
ÜSTÜNDAĞ ŞİRAY G., SAKALLIOĞLU S.  
Far East Journal of Theoretical Statistics, vol.38, no.1, pp.37-47, 2012 (Refereed Journals of Other Institutions)
- V. **Inadmissibility of The Liu Estimator To The Ordinary Least Squares Estimator**  
ÜSTÜNDAĞ ŞİRAY G., SAKALLIOĞLU S.  
ADVANCES AND APPLICATIONS IN STATISTICS, vol.19, no.1, pp.21-32, 2010 (Refereed Journals of Other Institutions)

### Refereed Congress / Symposium Publications in Proceedings

- I. **'Performance Evaluation of Swish Based Activation Functions For Multi Layer Networks**  
Koçak Y., Üstündağ Şiray G.  
International Conference on Engineering Technologies, ICENTE'21 , Konya, Turkey, 18 - 21 November 2021, pp.47
- II. **Simultaneous Prediction with Target Function in Case of Multicollinearity**  
Üstündağ Şiray G.  
8th International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM2021), Muğla, Turkey, 24 - 27 September 2021, pp.146

- III. **Comparison of Statistical and Neural Regression Using Activation Functions Derived from Swish Activation Function**  
Koçak Y., Üstündağ Şiray G.  
ICAME'21 The Second International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 1 - 03 September 2021, pp.56
- IV. **Applying a New Tobit Estimation Method to a Labor Supply Dataset**  
Toker Kutay S., Üstündağ Şiray G., Özbay N., Yenilmez İ.  
IECMSA-2021 10th International Eurasian Conference On Mathematical Sciences and Applications, Sakarya, Turkey, 25 - 27 August 2021, pp.182
- V. **Estimation In Replicated Ultrastructural Measurement Error Models By Improving Corrected Score Function**  
ÜSTÜNDAĞ ŞIRAY G.  
International Marmara Sciences Congress IMASCON 2020 - Autumn, Turkey, 4 - 05 December 2020
- VI. **Comparison of Statistical and Neural Regression Using Different Activation Functions**  
KOÇAK Y., ÜSTÜNDAĞ ŞIRAY G.  
5th International Mediterranean SCIENCE AND ENGINEERING CONGRESS 2020, Turkey, 21 October 2020
- VII. **Biased Estimation Approach to the Measurement Error Models**  
İncekaş C., Üstündağ Şiray G.  
ICOAEF'19, VI International Conference on Applied Economics and Finance & Extended with Social Sciences, Balıkesir, Turkey, 16 - 17 October 2019, pp.148
- VIII. **Liu Estimation for Tobit Regression Model**  
TOKER KUTAY S., ÖZBAY N., ÜSTÜNDAĞ ŞIRAY G., YENİLMEZ İ.  
20th International Symposium on Econometrics, Operations Research and Statistics (EYİ 2020), Ankara, Turkey, 12 - 14 February 2020
- IX. **Liu and Restricted Liu Estimators in Linear Measurement Error Models**  
Üstündağ Şiray G.  
11th International Statistics Congress, Muğla, Turkey, 4 - 08 October 2019, pp.38
- X. **Developing a First Order Two Parameter Estimator for Generalized Linear Model**  
Toker Kutay S., Üstündağ Şiray G., Qasim M.  
11th International Statistics Congress, Muğla, Turkey, 4 - 08 October 2019, pp.987-1001
- XI. **Examination of a two parameter estimator with mathematical programming method**  
ÖZBAY N., TOKER KUTAY S., ÜSTÜNDAĞ ŞIRAY G.  
International Conference on Mathematics and Mathematics Education (ICMME 2019), Konya, Turkey, 11 - 13 July 2019, pp.203-204
- XII. **A comparison of Conventional Statistical Regression Analysis and Fuzzy Regression**  
KOÇAK Y., ÜSTÜNDAĞ ŞIRAY G.  
The 5th International Fuzzy Systems Symposium, Ankara, Turkey, 14 - 15 October 2017, pp.90
- XIII. **Ölçüm Hatalı Modellerde Ranklara Dayalı Yöntem ile Parametre Tahmini**  
TOTİK N., ÜSTÜNDAĞ ŞIRAY G.  
XVIII. National and I. International Biostatistics Congress, Antalya, Turkey, 26 - 29 October 2016, pp.122-123
- XIV. **Ölçüm Hatalı Modellerde Gruplandırma Yöntemleriyle Parametre Tahmini**  
TOTİK N., ÜSTÜNDAĞ ŞIRAY G.  
XVIII. National and I. International Biostatistics Congress, Antalya, Turkey, 26 - 29 October 2016, pp.67-68
- XV. **Dealing With Measurement Errors In Linear Regression Models**  
TOTİK N., ÜSTÜNDAĞ ŞIRAY G., ALPARSLAN Z. N.  
The 8th Conference Of Eastern Mediterranean Region International Biometric Society, 11 - 13 May 2015
- XVI. **A New Restricted Estimator**  
ÜSTÜNDAĞ ŞIRAY G., TOKER S.  
International 8th Statistics Congress, Antalya, Turkey, 27 - 30 October 2013, pp.110-111
- XVII. **Inequality Constrained Ridge Regression Estimation**  
TOKER S., ÜSTÜNDAĞ ŞIRAY G., KAÇIRANLAR S.

14th International Symposium On Econometrics, Operations Research and Statistics, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2013, pp.339

XVIII. **On the restricted Liu estimator for the logistic regression model**

Siray G. U. , TOKER S., KAÇIRANLAR S., ÜSTÜNDAĞ ŞİRAY G.

8. Uluslararası İstatistik Günleri Sempozyumu, Eskişehir, Turkey, 11 - 13 October 2012, pp.1

XIX. **Liu Tahmin Edici İle En Küçük Kareler Tahmin Edicinin Mahalanobis Kayıp Fonksiyonu Altında Karşılaştırılması**

ÜSTÜNDAĞ ŞİRAY G., SAKALLIOĞLU S.

Uluslararası 7. İstatistik Kongresi, Antalya, Turkey, 28 April - 01 May 2011, pp.204-205

## Supported Projects

ÜSTÜNDAĞ ŞİRAY G., SEVİNDİK S., Project Supported by Higher Education Institutions, DİSKRİMİNANT ANALİZİ ve BAZI ALTERNATİF REGRESYON ANALİZLERİ, 2016 - 2018

ÜSTÜNDAĞ ŞİRAY G., TOTİK N., Project Supported by Higher Education Institutions, Lineer Regresyon Modellerinde Ölçüm Hataları, 2015 - 2016

ÜSTÜNDAĞ ŞİRAY G., Project Supported by Higher Education Institutions, Restricted Two Parameter Ridge Estimator; R-K Class Estimator In The Linear Regression Model With Correlated Errors, 2015 - 2015

## Scientific Refereeing

JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, SCI Journal, August 2021

JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, SCI Journal, April 2021

Thailand Statistician , Other Indexed Journal, March 2021

JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, SCI Journal, March 2021

ÇANAKKALE ONSEKİZ MART ÜNİVERSİTESİ FEN BİLİMLERİ ENSTİTÜSÜ DERGİSİ, National Scientific Refreed Journal, May 2020

COMMUNICATIONS SERIES A1: MATHEMATICS AND STATISTICS, National Scientific Refreed Journal, March 2020

JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, SCI Journal, August 2018

Project Supported by Higher Education Institutions, March 2018

Journal of Statistical Computation and Simulation, SCI Journal, July 2017

Communications in Statistics - Theory and Methods, SCI Journal, June 2017

Journal of Statistical Computation and Simulation, SCI Journal, July 2016

Journal of Applied Statistics, SCI Journal, July 2015

Communications in Statistics - Simulation and Computation, SCI Journal, April 2015

International Econometric Review, Other Indexed Journal, October 2014

## Citations

Total Citations (WOS):66

h-index (WOS):5

## Scholarships

Yurt İçi Doktora Programı Bideb, TUBITAK, 2006 - 2009