

Prof. AYŞEN AKKAYA

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: W-7848-2018

ScopusID: 6603740998

Yoksis Researcher ID: 2337

Education Information

Associate Degree, Anadolu University, Açıköğretim Fakültesi, Otel, Lokanta Ve İkram Hizmetleri Bölümü (Aöf), Turkey
2021 - 2023

Doctorate, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, Turkey 1989 - 1995

Research Areas

Water Pollution and Control, Geotechnical, Statistics, Statistical Analysis and Applications

Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2015 -
2021

Advising Theses

Akkaya A., DEVELOPMENT OF EARTHQUAKE MAGNITUDE CONVERSION EQUATIONS: STOCHASTIC REGRESSION VERSUS
GENERAL ORTHOGONAL REGRESSION, Postgraduate, O.Kıncı(Student), 2019

Akkaya A., Micro-level analysis of unregistered employment in Turkey with group comparisons, Postgraduate,
M.İNER(Student), 2019

Akkaya A., MULTI-HAZARD RELIABILITY OF ELECTRIC POWER TRANSMISSION NETWORKS WITH SPATIALLY
CORRELATED COMPONENTS, Postgraduate, U.ALTAY(Student), 2019

Caner A., AKKAYA A., Investigation and comparison of bearing devices used in high-speed railway bridges under
earthquake impact, Postgraduate, U.AŞCI(Student), 2019

Akkaya A., Multi-criteria decision making in site selection for nuclear power plants, Postgraduate, B.TUNCER(Student),
2019

Caner A., AKKAYA A., Evaluation of intensity measures for ground motion selection to be used in the analysis of highway
flyover bridges, Postgraduate, A.AKRAY(Student), 2019

AKKAYA A., Comparison of iterative algorithms for parameter estimation in nonlinear regression, Postgraduate,
G.MUSLUOĞLU(Student), 2018

YAMAN İ. Ö., AKKAYA A., Strength assesment of Turkish cements, Postgraduate, N.İPEK(Student), 2017

AKKAYA A., Reconstruction of gene regulatory networks, Doctorate, S.BALCI(Student), 2014

AKKAYA A., BAYKAL N., A new framework for evaluation of field based academic performances of higher education institutions, Postgraduate, F.ÖMRÜUZUN(Student), 2011

ŞENER C., AKKAYA A., A grid-based seismic hazard analysis application, Postgraduate, Ç.KOCAİR(Student), 2010

AKKAYA A., Robust estimation and hypothesis testing in microarray analysis, Doctorate, B.EMRE(Student), 2010

AKKAYA A., Pairwise multiple comparisons under short-tailed symmetric distribution, Postgraduate, S.BALCI(Student), 2007

AKKAYA A., Goodness-of-fit test based on censored samples, Postgraduate, C.Çiğşar(Student), 2005

AKKAYA A., Experimental design with short-tailed and long-tailed symmetric error distributions, Postgraduate, Y.ELİF(Student), 2004

ALPASLAN F. N., AKKAYA A., Bayesian learning under nonnormality, Postgraduate, Y.ELİF(Student), 2004

AKKAYA A., Applications of estimation techniques on genetic and other types of data, Postgraduate, M.ASLAN(Student), 2003

AKKAYA A., Applications of estimation techniques on genetic and ather types of data, Postgraduate, M.Aslan(Student), 2003

AKKAYA A., Goodness-of-fit tests and outlier detection, Doctorate, B.SÜRÜCÜ(Student), 2003

AKKAYA A., Analysis of economic data using robust methods, Postgraduate, E.ERDOĞAN(Student), 2002

AKKAYA A., Autoregressive models: Statistical inference and applications, Doctorate, Ö.TÜRKER(Student), 2002

AKKAYA A., Statistical evaluation of the loss function approach for symmetric and asymmetric cases in quality control, Postgraduate, F.Bariş(Student), 1999

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, January, 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Multicriteria Decision Making in Site Selection for Nuclear Power Plants**
Tuncer B., AKKAYA A., YÜCEMEN M. S.
Nuclear Technology, vol.210, no.8, pp.1366-1391, 2024 (SCI-Expanded)
- II. **Adaptive estimation of autoregression models under long-tailed symmetric distribution**
Yentür B., AKKAYA A., Bayrak Ö. T.
Communications in Statistics: Simulation and Computation, vol.53, no.7, pp.3395-3417, 2024 (SCI-Expanded)
- III. **Re: Ratio of umbilical and cerebral artery pulsatility indices in assessment of fetal risk: numerator and denominator matter**
Kalafat E., Ozturk E., Kalaylioglu Z. I., Akkaya A., Khalil A.
Ultrasound in Obstetrics and Gynecology, vol.56, no.2, pp.290-292, 2020 (SCI-Expanded)
- IV. **Inference of Autoregressive Model with Stochastic Exogenous Variable Under Short-Tailed Symmetric Distributions**
Bayrak O. T., AKKAYA A.
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.42, pp.2105-2116, 2018 (SCI-Expanded)
- V. **Statistical Seismology Science Gateway**
Kocair C., ŞENER C., AKKAYA A.
SCIENCE GATEWAYS FOR DISTRIBUTED COMPUTING INFRASTRUCTURES: DEVELOPMENT FRAMEWORK AND EXPLOITATION BY SCIENTIFIC USER COMMUNITIES, pp.167-180, 2014 (SCI-Expanded)
- VI. **Robust estimation of magnitude-frequency relationship parameters**

YÜCEMEN M. S., AKKAYA A.

STRUCTURAL SAFETY, vol.38, pp.32-39, 2012 (SCI-Expanded)

- VII. **Estimating parameters of a multiple autoregressive model by the modified maximum likelihood method**
Türker Bayrak Ö., Akkaya A.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.233, no.8, pp.1763-1772, 2010 (SCI-Expanded)
- VIII. **ESTIMATION IN MULTIFACTOR POLYNOMIAL REGRESSION UNDER NON-NORMALITY**
Tiku M. L., Akkaya A.
PAKISTAN JOURNAL OF STATISTICS, vol.26, no.1, pp.49-68, 2010 (SCI-Expanded)
- IX. **Estimating parameters in autoregressive models with asymmetric innovations**
AKKAYA A., Tiku M. L.
STATISTICS & PROBABILITY LETTERS, vol.78, no.17, pp.2916, 2008 (SCI-Expanded)
- X. **Analysis of variance and linear contrasts in experimental design with generalized secant hyperbolic distribution**
Yilmaz Y. E., AKKAYA A.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.216, no.2, pp.545-553, 2008 (SCI-Expanded)
- XI. **Robust estimation in multiple linear regression model with non-Gaussian noise**
Akkaya A., Tiku M. L.
AUTOMATICA, vol.44, no.2, pp.407-417, 2008 (SCI-Expanded)
- XII. **Time series AR(1) model for short-tailed distributions**
Akkaya A., Tiku M.
STATISTICS, vol.39, no.2, pp.117-132, 2005 (SCI-Expanded)
- XIII. **Stochastic modeling of earthquake occurrences and estimation of seismic hazard: a random field approach**
Akkaya A., Yucemen M.
PROBABILISTIC ENGINEERING MECHANICS, vol.17, no.1, pp.1-13, 2002 (SCI-Expanded)
- XIV. **Estimating parameters in autoregressive models in non-normal situations: Asymmetric innovations**
Akkaya A., Tiku M.
Communications in Statistics - Theory and Methods, vol.30, no.3, pp.517-536, 2001 (SCI-Expanded)
- XV. **Estimation of earthquake hazard based on extremes of local integral random functions**
Akkaya A., Yucemen M.
Engineering Geology, vol.58, no.1, pp.53-66, 2000 (SCI-Expanded)
- XVI. **THE RISK-FACTORS IN CENTRAL VENOUS CATHETER-RELATED THROMBOSIS**
KOKSOY C., KUZU A., ERDEN I., AKKAYA A.
AUSTRALIAN AND NEW ZEALAND JOURNAL OF SURGERY, vol.65, no.11, pp.796-798, 1995 (SCI-Expanded)

Books & Book Chapters

- I. **A New Estimation Technique for AR(1) Model with Long-Tailed Symmetric Innovations**
TÜRKER BAYRAK Ö., AKKAYA A.
in: Contributions to Statistics: Time Series Analysis and Forecasting, Rojas Ignacio, Pomres Héctor, Valenzuela Olga, Editor, Springer, pp.39-63, 2018
- II. **A Comparative Study of Stochastic Models for Seismic Hazard Estimation**
AKKAYA A., semih y.
in: Land Based and Marine Hazards Scientific and Management Issues, El-Sabh, M.I., Venkatesh, S., Denis, H., Murty, T.S., Editor, Springer Netherlands, pp.5-24, 2016
- III. **Statistical Seismology Science Gateway**
Çelebi K., AKKAYA A., ŞENER C.
in: Science Gateways for Distributed Computing Infrastructures, , Editor, Springer International Publishing, pp.167-180, 2014

IV. Robust Estimation and Hypothesis Testing

Akkaya A., Moti L T.

New Age International (P) Publishers, New Delhi, 2004

V. Estimation of Spatial Correlation of Soil Parameters Based on Data from the Texas AM University NGES

Akkaya A., Vanmarcke E.

in: Probabilistic Site Characterization at the National Geotechnical Experimentation Sites, Erik Vanmarcke, Gordon A. Fenton, Editor, American Society of Civil Engineers (ASCE) , New York, pp.29-40, 2003

Refereed Congress / Symposium Publications in Proceedings

I. Estimation of AR(1) Model Having Generalized Logistic Disturbances

AKKAYA A., TÜRKER BAYRAK Ö.

11. International Statistics Congress- ISC- 2019, Turkey, 4 - 08 October 2019

II. Autoregressive models with stochastic design variables and nonnormal innovations

Bayrak Ö. T., Akkaya A.

5th International Conference on Applied Mathematics, Simulation, Modelling, ASM'11, Corfu Island, Greece, 14 - 16 July 2011, pp.197-201

Scientific Refereeing

JOURNAL OF APPLIED STATISTICS, SCI Journal, December 2020

JOURNAL OF APPLIED STATISTICS, SCI Journal, October 2020

Journal Of Applied Statistics, SCI Journal, January 2019

Tasks In Event Organizations

Akkaya A., 3 rd International conference on mathematics and statistics, Scientific Congress, Paris, France, Haziran 2020

Metrics

Publication: 37

Citation (WoS): 175

Citation (Scopus): 219

H-Index (WoS): 8

H-Index (Scopus): 8

Non Academic Experience

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