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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-6759-2020

ScopusID: 16023097100

Yoksis Researcher ID: 183364

Education Information

Undergraduate, Anadolu University, Faculty Of Arts And Sciences, Felsefe, Turkey 2017 - 2020

Doctorate, Lancaster University, Department Of Mathematics And Statistics, United Kingdom 2004 - 2007

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, İstatistik (YI) (Tezli), Turkey 2002 - 2004

Undergraduate Minor, Middle East Technical University, Faculty of Economic and Administrative Sciences, Department of Economics, Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, Turkey 1997 - 2002

Dissertations

Doctorate, Gen ağları analizlerinde Bayesci metotlar, Lancaster University, Department Of Mathematics And Statistics, 2007

Postgraduate, Zaman serisi analizlerinde birim kök problemleri, Middle East Technical University, Graduate School of Natural and Applied Sciences, İstatistik (YI) (Tezli), 2004

Research Areas

Biomedical Engineering, Statistical Analysis and Applications, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - Continues

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2018 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2012 - 2018

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2010 - 2012

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2009 - 2010

Research Assistant PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2007 - 2009

Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2002 - 2007

Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2022 - Continues

Internship Coordinator, Middle East Technical University, 2013 - Continues

Erasmus Program Department Coordinator, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2022 - 2022

Erasmus Program Institutional Coordinator, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - 2021

Head of Department, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - 2021

Chairman or Member of the Commission of Inquiry, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2018 - 2018

Courses

Stochastic Processes, Undergraduate, 2022 - 2023

Multivariate Analyses, Undergraduate, 2022 - 2023

Decision Theory and Bayesian Analysis, Postgraduate, 2019 - 2020, 2018 - 2019

New Horizons in Statistics, Undergraduate, 2018 - 2019

Probability 1, Undergraduate, 2019 - 2020

NONPARAMETRIC STATISTICS, Undergraduate, 2017 - 2018

STATISTICAL METHODS, Undergraduate, 2017 - 2018

STATISTICAL METHODS, Undergraduate, 2018 - 2019

STATISTICS FOR BIOINFORMATICS, Postgraduate, 2018 - 2019

Advising Theses

Purutçuoğlu V., Application of statistical methods in the analyses of foster family, Postgraduate, G.ATAR(Student), 2023

Purutçuoğlu V., Collective anomaly detection in time series using pitch frequency and dissimilarity features, Doctorate, E.CAN(Student), 2023

Purutçuoğlu V., Modelling mutual interaction of finance and human factor via various sorts of indices, Doctorate, B.KALAYCI(Student), 2023

Purutçuoğlu V., A non-parametric circular network construction via simulations and a Hidden Markov model for the HIV-1 protease cleavage site detection, Doctorate, E.DOĞAN(Student), 2023

UĞUR Ö., PURUTÇUOĞLU GAZİ V., Extension of leap condition in approximate stochastic simulation algorithms of biological networks, Postgraduate, S.DEMİRBÜKEN(Student), 2021

PURUTÇUOĞLU GAZİ V., Graphical models in inference of biological networks, Doctorate, H.Farnoudkia(Student), 2020

Purutçuoğlu Gazi V., Novel model selection criteria on high dimensional biological networks, Postgraduate, G.BAHAR(Student), 2019

Purutçuoğlu Gazi V., INFERENCE OF LARGE-SCALE NETWORKS VIA STATISTICAL APPROACHES, Doctorate, E.AYYILDIZ(Student), 2019

PURUTÇUOĞLU GAZİ V., Analyses and modeling of ovarian cancer microarray data, Postgraduate, B.S(Student), 2019

Purutçuoğlu Gazi V., Model comparison for gynecological cancer datasets and selection of threshold value, Doctorate,

B.BAHÇİVANCİ(Student), 2019
 PURUTÇUOĞLU GAZİ V., Different types of modellings and the inference of model parameters for complex biological systems, Doctorate, M.AĞRAZ(Student), 2017
 PURUTÇUOĞLU GAZİ V., Deterministic modeling and inference of biochemical networks, Postgraduate, D.SEÇİLMİŞ(Student), 2017
 PURUTÇUOĞLU GAZİ V., Deterministic modeling and inference of biological systems, Postgraduate, D.Seçilmiş(Student), 2017
 PURUTÇUOĞLU GAZİ V., Application of copulas in graphical models for inference of biological systems, Postgraduate, D.DOKUZOĞLU(Student), 2016
 Purutçuoğlu Gazi V., Stochastic simulations of biological networks under impulses, Postgraduate, M.ERGÜL(Student), 2016
 PURUTÇUOĞLU GAZİ V., Stochastic simulations of biological networks under i-mpulses, Postgraduate, M.ERGÜL(Student), 2016
 PURUTÇUOĞLU GAZİ V., Regulatory networks studied by ellipsoidal calculus, Postgraduate, S.YAYLA(Student), 2015
 PURUTÇUOĞLU GAZİ V., Comparison of the simulation tools for the deterministic modeling of biochemical networks, Postgraduate, G.TUNCER(Student), 2015
 YANIK T., PURUTÇUOĞLU GAZİ V., Effect of maternal high fat diet on hypothalamus vacularite of their offspring /, Postgraduate, H.Taner(Student), 2014
 PURUTÇUOĞLU GAZİ V., YANIK T., Effects of maternal high fat diet on hypothalamus vascularite of their offspring, Postgraduate, H.TANER(Student), 2014
 PURUTÇUOĞLU GAZİ V., ACAR A. C., Analysis of motifs in microRNA-transcription factor gene regulatory networks, Postgraduate, B.SÜRÜN(Student), 2014
 PURUTÇUOĞLU GAZİ V., Detection of the distribution and parameter estimation for the departing connectivity in biological networks, Postgraduate, O.DORCAS(Student), 2014
 PURUTÇUOĞLU GAZİ V., Comparative statistical microarray analysis of yeast data under heat shock stress, Postgraduate, D.VAROL(Student), 2014
 PURUTÇUOĞLU GAZİ V., Gaussian graphical approaches in estimation of biological systems, Postgraduate, E.AYYILDIZ(Student), 2013
 PURUTÇUOĞLU GAZİ V., Gene expression indices for single channel microarrays, Postgraduate, T.AKAL(Student), 2013

Jury Memberships

Award, Ankara Üniversitesi Fen Bilimleri Ödülü, Ankara Üniversitesi, February, 2022
 Doctoral Examination, Doctoral Examination, Gazi University, December, 2021
 Associate Professor Exam, Associate Professor Exam, Middle East Technical University, November, 2021
 Associate Professor Exam, Associate Professor Exam, Middle East Technical University, May, 2021
 Associate Professor Exam, Associate Professor Exam, Middle East Technical University, May, 2021
 Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, March, 2021
 Committee Of Expert, Committee Of Expert, Middle East Technical University, January, 2021
 Associate Professor Exam, Associate Professor Exam, Middle East Technical University, April, 2020
 Associate Professor Exam, Associate Professor Exam, Middle East Technical University, April, 2020
 Appointment to Academic Staff-Professorship, Appointment Academic Staff, Gazi Üniversitesi, December, 2019
 Appointment to Academic Staff-Professorship, Appointment Academic Staff, Gazi Üniversitesi, January, 2019
 Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, December, 2018
 Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, November, 2018
 Award, Mustafa Parlar Vakfı ODTÜ Tez Ödülleri, Orta Doğu Teknik Üniversitesi, September, 2018
 Doctoral Examination, Doctoral Examination, Ankara Üniversitesi, July, 2018
 Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, July, 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Optimal model description of finance and human factor indices**
Kalaycı B., PURUTÇUOĞLU V., Weber G. W.
Central European Journal of Operations Research, 2024 (SCI-Expanded)
- II. **A new collective anomaly detection approach using pitch frequency and dissimilarity: Pitchy anomaly detection (PAD)**
Erkuş E. C., PURUTÇUOĞLU V.
Journal of Computational Science, vol.72, 2023 (SCI-Expanded)
- III. **Outlier detection and quasi-periodicity optimization algorithm: Frequency domain based outlier detection (FOD)**
Erkuş E. C., Purutcuoglu V.
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.291, no.2, pp.560-574, 2021 (SCI-Expanded)
- IV. **Novel model selection criteria for LMARS: MARS designed for biological networks**
Bulbul G. B., PURUTÇUOĞLU GAZİ V.
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.91, no.9, pp.1749-1761, 2021 (SCI-Expanded)
- V. **Vine copula graphical models in the construction of biological networks**
Farnoudkia H., PURUTÇUOĞLU GAZİ V.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.50, no.4, pp.1172-1184, 2021 (SCI-Expanded)
- VI. **Long-tailed graphical model and frequentist inference of the model parameters for biological networks**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.90, no.9, pp.1591-1605, 2020 (SCI-Expanded)
- VII. **Novel model selection criteria on sparse biological networks**
Bulbul G. B., Purutcuoglu V., Purutcuoglu E.
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.16, no.9, pp.5359-5364, 2019 (SCI-Expanded)
- VIII. **Detection of abnormalities in heart rate using multiple Fourier transforms**
Erkuş E. C., Purutcuoglu V., Purutcuoglu E.
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.16, pp.5237-5242, 2019 (SCI-Expanded)
- IX. **Copula Gaussian graphical modeling of biological networks and Bayesian inference of model parameters**
Farnoudkia H., Purutcuoglu V.
SCIENTIA IRANICA, vol.26, no.4, pp.2495-2505, 2019 (SCI-Expanded)
- X. **Extended lasso-type MARS (LMARS) model in the description of biological network**
Agraz M., PURUTÇUOĞLU GAZİ V.
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.89, no.1, pp.1-14, 2019 (SCI-Expanded)
- XI. **Loop-based conic multivariate adaptive regression splines is a novel method for advanced construction of complex biological networks**
Ayyıldız Demirci E., Purutçuoğlu Gazi V., Weber G. W.
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.270, pp.852-861, 2018 (SCI-Expanded)
- XII. **Modeling of various biological networks via LCMARS**
AYYILDIZ DEMİRCİ E., PURUTÇUOĞLU GAZİ V.
JOURNAL OF COMPUTATIONAL SCIENCE, vol.28, pp.148-154, 2018 (SCI-Expanded)
- XIII. **Transcriptomic analysis of the heat stress response for a commercial baker's yeast *Saccharomyces cerevisiae***
VAROL D., PURUTÇUOĞLU GAZİ V., YILMAZ R.
GENES & GENOMICS, vol.40, no.2, pp.137-150, 2018 (SCI-Expanded)
- XIV. **Impulsive Expressions in Stochastic Simulation Algorithms**
Altıntan D., Purutcuoglu V., UĞUR Ö.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.15, no.1, 2018 (SCI-Expanded)

- XV. **Comprehensive Analyses of Gaussian Graphical Model under Different Biological Networks**
Dokuzoglu D., PURUTÇUOĞLU GAZİ V.
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.1106-1111, 2017 (SCI-Expanded)
- XVI. **Gibbs Sampling in Inference of Copula Gaussian Graphical Model Adapted to Biological Networks**
PURUTÇUOĞLU GAZİ V., Farnoudkia H.
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.1112-1117, 2017 (SCI-Expanded)
- XVII. **Robust background normalization method for one-channel microarrays**
AKAL T., PURUTÇUOĞLU GAZİ V., Weber G.
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.42, no.2, pp.111-121, 2017 (SCI-Expanded)
- XVIII. **Comparison of two inference approaches in Gaussian graphical models**
PURUTÇUOĞLU GAZİ V., AYYILDIZ DEMİRCİ E., Wit E.
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.42, no.2, pp.203-211, 2017 (SCI-Expanded)
- XIX. **Bernstein approximations in glasso-based estimation of biological networks**
PURUTÇUOĞLU GAZİ V., Agraz M., Wit E.
CANADIAN JOURNAL OF STATISTICS-REVUE CANADIENNE DE STATISTIQUE, vol.45, no.1, pp.62-76, 2017 (SCI-Expanded)
- XX. **MARS as an alternative approach of Gaussian graphical model for biochemical networks**
AYYILDIZ DEMİRCİ E., Agraz M., PURUTÇUOĞLU GAZİ V.
JOURNAL OF APPLIED STATISTICS, vol.44, no.16, pp.2858-2876, 2017 (SCI-Expanded)
- XXI. **Clustering current climate regions of Turkey by using a multivariate statistical method**
İyigün C., Turkes M., Batmaz İ., Yozgatligil C., Purutcuoglu V., Koc E. K., Ozturk M. Z.
THEORETICAL AND APPLIED CLIMATOLOGY, vol.114, pp.95-106, 2013 (SCI-Expanded)
- XXII. **Inference of the stochastic MAPK pathway by modified diffusion bridge method**
PURUTÇUOĞLU GAZİ V.
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, vol.21, no.2, pp.415-429, 2013 (SCI-Expanded)
- XXIII. **Robust Gene Expression Index**
PURUTÇUOĞLU GAZİ V.
MATHEMATICAL PROBLEMS IN ENGINEERING, 2012 (SCI-Expanded)
- XXIV. **Estimating Network Kinetics of the MAPK/ERK Pathway Using Biochemical Data**
Purutcuoglu Gazi V., Wit E.
MATHEMATICAL PROBLEMS IN ENGINEERING, 2012 (SCI-Expanded)
- XXV. **Bayesian inference for the MAPK/ERK pathway by considering the dependency of the kinetic parameters**
PURUTÇUOĞLU GAZİ V., Wit E.
BAYESIAN ANALYSIS, vol.3, no.4, pp.851-886, 2008 (SCI-Expanded)
- XXVI. **FGX: a frequentist gene expression index for Affymetrix arrays**
Purutcuoglu V., Wit E.
BIOSTATISTICS, vol.8, no.2, pp.433-437, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **Extension of Leap Condition in Approximate Stochastic Simulation Algorithms of Biological Networks**
Demirbüken S., Purutcuoglu Gazi V.
Turkish Journal of Mathematics and Computer Science, vol.15, no.1, pp.1-11, 2022 (Peer-Reviewed Journal)
- II. **Application of r-vine copula method in Istanbul stock market data: A case study for the construction sector**
Farnoudkia H., Purutcuoglu Gazi V.
Journal of Turkish Operations Management, vol.4, no.2, pp.509-518, 2020 (Peer-Reviewed Journal)
- III. **Estimation of gynecological cancer networks via target proteins**

Bahçivancı B., Purutçuoğlu Gazi V., Purutçuoğlu E., Ürün Y.

Journal of Multidisciplinary Engineering Science and Technology, vol.5, no.12, pp.9296-9302, 2018 (Peer-Reviewed Journal)

- IV. **Is it necessary to apply the outlier detection for protein-protein interaction data?**
Ayyıldız E., Purutçuoğlu Gazi V.
Journal of Biostatistics-Turkish Clinics, vol.10, no.3, pp.173-186, 2018 (Peer-Reviewed Journal)
- V. **Exact stochastic simulation algorithms and impulses in biological systems**
Altıntan D., Purutçuoğlu Gazi V.
International Journal of Computational and Experimental Science and Engineering, vol.4, no.2, pp.41-47, 2018 (Peer-Reviewed Journal)
- VI. **Gen Ağlarının Matematiksel Modellenmesi**
PURUTÇUOĞLU GAZİ V., AYYILDIZ DEMİRCİ E.
Türkiye Klinikleri Biyoistatistik Dergisi, vol.9, no.2, pp.143-155, 2017 (Peer-Reviewed Journal)
- VII. **Application of impulsive deterministic simulation of biochemical networks via simulation tools**
Purutçuoğlu Gazi V.
Proceedings of the Jangjeon Mathematical Society, vol.20, no.1, pp.105-119, 2017 (Scopus)
- VIII. **Gen ağlarının matematiksel modellemesi**
Purutçuoğlu Gazi V.
Biyoistatistik Dergisi-Türkiye Klinikleri, vol.9, no.2, pp.143-155, 2017 (Peer-Reviewed Journal)
- IX. **Different types of Bernstein operators in inference of Gaussian graphical model**
Agraz M., PURUTÇUOĞLU GAZİ V.
COGENT MATHEMATICS, vol.3, 2016 (ESCI)
- X. **Comparative assessment of simulation tools for bio- chemical networks**
Purutçuoğlu Gazi V.
American Review of Mathematics and Statistics, vol.3, no.2, pp.69-82, 2015 (Peer-Reviewed Journal)
- XI. **A short note on resolving singularity problems in covariance matrices**
Purutçuoğlu Gazi V., Ayyıldız E., Wit E.
International Journal of Statistics and Probability, vol.1, no.2, pp.113-118, 2012 (Peer-Reviewed Journal)
- XII. **Türkiye İklim Bölgelerinin Hiyerarşik Kümeleme Yöntemi ile Belirlenmesi**
Kartal E., İyigün C., Fahmi M. F., Yozgatlıgil C., Purutçuoğlu Gazi V., Batmaz İ., Köksal G., Turkes M.
İSTATİSTİK ARAŞTIRMA DERGİSİ, vol.8, pp.13-25, 2011 (Peer-Reviewed Journal)
- XIII. **Stukel's extended logistic regression analysis with R**
Purutçuoğlu Gazi V.
Journal of Biostatistics-Turkish Clinics, vol.3, no.1, pp.49-56, 2011 (Peer-Reviewed Journal)
- XIV. **Review of the six-sigma methodology and its case studies**
Purutçuoğlu Gazi V.
Selçuk Journal of Applied Mathematics, vol.12, no.1, pp.95-108, 2011 (Peer-Reviewed Journal)
- XV. **Biyokimyasal reaksiyonlar için stokastik simülasyon algoritmalarına genel bir bakış**
Purutçuoğlu Gazi V.
İstatistik Araştırma Dergisi, vol.7, no.1, pp.70-82, 2010 (Peer-Reviewed Journal)
- XVI. **Bayesian inference of the complex MAPK pathway under structural dependency**
Purutçuoğlu Gazi V.
Journal of Statistical Research, vol.6, no.1, pp.1-17, 2008 (Peer-Reviewed Journal)
- XVII. **Exact and Approximate Stochastic Simulations of the MAPK Pathway and Comparisons of Simulations' Results**
Purutçuoğlu Gazi V.
Journal of Integrative Bioinformatics, vol.38, no.3, pp.1-13, 2006 (ESCI)

Books & Book Chapters

- I. **İnsan-Makine Uygulamalarında Kullanılacak Fizyolojik İnsan Verileri için Temel Alt-Yapısal Yazılım ve Donanım Süreçleri Geliştirme**
Purutçuoğlu V. (Editor), Weber G. W. (Editor), Farnoudkia H. (Editor)
CRC, New York, New York, 2022
- II. **Evaluation of Data Compression Methods for Efficient Transport and Classification of Facial EMG Signals**
Arı F., Akan E., Aktaş Dinçer H., Erkuş E. C., Farzin Asanjan M., Gökçay D., İleri F., Purutçuoğlu V., Somuncuoğlu A. N.
in: Operations Research New Paradigms and Emerging Applications, Vilda Purutçuoğlu, Gerhard-Wilhelm Weber, Hajar Farnoudkia, Editor, CRC, New York, New York, pp.239-258, 2022
- III. **Two new non-parametric models for biological networks**
Seçilmiş D., Ağraz M., Purutçuoğlu Gazi V.
in: Bayesian Reasoning and Gaussian Processes for Machine Learning Applications, Hemachandran K, Shubham Tayal, Preetha Mary George, Parveen Singla, Utku Kose, Editor, CRC, New York, New York, pp.77-100, 2022
- IV. **Operation Research in Neuroscience: A Recent Perspective of Operation Research Application in Finance**
Kalaycı B., Purutçuoğlu V., Wilhelm Weber G.
in: Operations Research: New Paradigms and Emerging Applications, Purutçuoğlu V., Weber G.W. and Farnoudkia H., Editor, CRC, New York, New York, pp.170-190, 2022
- V. **Bayesian Inference for Undirected Network Models**
Farnoudkia H., Purutçuoğlu V.
in: Operations Research: New Paradigms and Emerging Applications, Purutçuoğlu V., Weber G.W. and Farnoudkia H., Editor, CRC, New York, New York, pp.218-238, 2022
- VI. **Generating various types of graphical models via MARS**
Ayyıldız Demirci E., Purutçuoğlu V.
in: Bayesian Reasoning and Gaussian Processes for Machine Learning Applications, K. Hemachandran, S. Tayal, P. M. George, P. Singla, U. Kose., Editor, CRC, New York, New York, pp.101-110, 2022
- VII. **Vine copula and artificial neural network models to analyze breast cancer data**
Farnoudkia H., Purutçuoğlu Gazi V.
in: Artificial Intelligence for Data-Driven Medical Diagnosis, Deepak Gupta, Utku Kose, Bao Le Nguyen and Siddhartha Bhattacharyya, Editor, Walter de Gruyter, Inc., Berlin, pp.287-304, 2021
- VIII. **Construction of a new model to investigate breast cancer data**
Ağyüz U., PURUTÇUOĞLU V., PURUTÇUOĞLU E., ÜRÜN Y.
in: Modeling, Dynamics, Optimization and Bioeconomics IV, A. Pinto and D. Zilberman, Editor, Springer, pp.11-29, 2021
- IX. **Construction of a new model to investigate breast cancer data**
Ağyüz U., Purutçuoğlu V., Purutçuoğlu E., Ürün Y.
in: Modeling, Dynamics, Optimization and Bioeconomics IV, A. Pinto, D. Zilberman, Editor, Springer Nature, Chur, pp.11-29, 2021
- X. **Vine copula and artificial neural network models to analysis breast cancer data**
PURUTÇUOĞLU V., Farnoudkia H.
in: Artificial Intelligence for Data-Driven Medical Diagnosis, D. Gupta, U. Kose, B. L. Nguyen, S. Bhattacharyya, Editor, De Gruyter, pp.287-303, 2021
- XI. **Detection of HIV-1 protease cleavages sites via hidden Markov model and physicochemical properties of aminoacids**
Doğan Dar E., PURUTÇUOĞLU GAZİ V.
in: Numerical Solutions of Real-Life Nonlinear Phenomena., J. A. T. Machado, N. Ozdemir, D. Baleanu, Editor, Springer, Cham, pp.226-233, 2020
- XII. **Detection of HIV-1 protease cleavages sites via hidden Markov model and physicochemical properties of aminoacids**
Doğan Dar E., Purutçuoğlu Gazi V., Purutçuoğlu E.
in: Numerical Solutions of Realistic Nonlinear Phenomena, J. A. T. Machado, N. Ozdemir, D. Baleanu, Editor, Springer,

London/Berlin , Ankara, pp.171-193, 2020

- XIII. **Empirical copula in the detection of batch effects**
Ağraz M., Purutçuoğlu Gazi V.
in: Mathematical Methods in Engineering, K. Tas D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Ankara, pp.25-39, 2019
- XIV. **Modeling of biochemical networks via classification and regression tree methods**
Seçilmiş D., Purutçuoğlu Gazi V.
in: Mathematical Methods in Engineering, K.Taş,D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Chur, pp.87-102, 2019
- XV. **Modeling of biochemical networks via classification and regression tree methods**
Seçilmiş D., Purutçuoğlu Gazi V.
in: Mathematical Methods in Engineering, K. Tas D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Ankara, pp.87-102, 2018
- XVI. **Major simulation tools for biochemical networks**
Tuncer G., Purutçuoğlu Gazi V.
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto,Z. Zilberman, Editor, Springer, London/Berlin , Berlin, pp.443-467, 2018
- XVII. **Stochastic modelling of biochemical networks and inference of model parameters**
Purutçuoğlu Gazi V.
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto,Z. Zilberman, Editor, Springer, London/Berlin , Berlin, pp.369-385, 2018
- XVIII. **Major simulation tools for biochemical networks**
Tuncer G., PURUTÇUOĞLU GAZİ V.
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto, Z. Zilberman, Editor, Springer, pp.443-467, 2018
- XIX. **Stochastic modelling of biochemical networks and inference of model parameters**
PURUTÇUOĞLU GAZİ V.
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto, Z. Zilberman, Editor, Springer, pp.369-385, 2018
- XX. **Transformations of data in deterministic modelling of biological networks**
Ağraz M., Purutçuoğlu Gazi V.
in: Intelligent Mathematics II: Applied Mathematics and Approximation Theory, O. Duman, Editor, Springer, London/Berlin , Berlin, pp.343-356, 2016
- XXI. **Biyoinformatik Alanında İstatistik**
Purutçuoğlu Gazi V.
Nobel Yayın Dağıtım, Ankara, 2014
- XXII. **Advanced mathematical and statistical tools in the dynamic modelling and simulation of gene-environment networks**
Defterli Ö., Purutçuoğlu Gazi V., Weber G. W.
in: Modeling, Optimization, Dynamics and Bioeconomy, D. Zilberman and A. Pinto, Editor, Springer, London/Berlin , Berlin, pp.235-257, 2014
- XXIII. **Biyolojik ağlar, evrim, hastalık ve gen fonksiyonlarını ortaya çıkarmaktadır**
Purutçuoğlu Gazi V.
in: Biyologlar İçin Biyoinformatik, Z. Kaya, Editor, Nobel Yayın Dağıtım, Ankara, pp.291-314, 2014
- XXIV. **Determining the Climate Zones of Turkey by Center-Based Clustering Methods**
Fahmi F., Kartal E., Iyigün C., Turkes M., Batmaz I., Yozgatligil C., Purutçuoğlu Gazi V., Köksal G.
in: Nonlinear and Complex Dynamics: Applications in Physical Biological and Financial Systems, J.A. Tenreiro Machado,Baleanu,D. and A. Luo, Editor, Springer, London/Berlin , London, pp.171-178, 2011
- XXV. **Survey of background normalizations for Affymetrix arrays and a case study**
Purutçuoğlu Gazi V., Kayış E., Weber G. W.
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Kaygusuz M. A., Purutçuoğlu V.
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- XV. **Bootstrap and cross-validation methods in graphical lasso algorithm**
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- XVIII. **A new frequency domain and dynamic time warping based feature**
Erkuş E. C., Purutçuoğlu V.
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- XIX. **Deep neural networks for faster nonparametric regression**
Kaygusuz M. A., Purutçuoğlu V.
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- XX. **A conditional randomization test for generalized additive models with bootstrap methods**
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- XXII. **Comparison of several machine learning classifiers for arousal classification: A preliminary study**
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- XXIII. **Comparison of data interpolation methods in time course pupil diameter data**
Farzin M., Purutçuoğlu Gazi V., Arı F., Gökçay D.
Medical Technologies Congress (TIPTEKNO 2020), İstanbul, Turkey, 19 - 20 November 2020, pp.27-30
- XXIV. **Investigation on the use of hidden layers, different numbers of neurons and different activation functions to detect pupil dilation responses to stress**
Somuncuoğlu A. N., Purutçuoğlu Gazi V., Arı F., Gökçay D.
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- XXV. **Dynamic time warping (DTW) as a feature in classification of motor task fNIRS data**
Erkuş E. C., Purutçuoğlu Gazi V.
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- XXVI. **Extension of leap condition in approximate stochastic simulation algorithms of biological networks**
Demibüken S., Purutçuoğlu Gazi V.

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- XXVII. **A new approximate stochastic simulation algorithm for biochemical systems**
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- XXVIII. **The Model Selection Methods for Sparse Biological Networks**
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- XXXI. **Description of BIST 50 via volatility models and sector-based variables**
Purutçuoğlu Gazi V.
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- XXXII. **Bootstrap-based Model Selection Criteria in Biological Networks**
Kaygusuz M. A., Purutçuoğlu Gazi V.
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- XXXIII. **Circadian gene interactions: a circular approach**
Doğan Dar E., Purutçuoğlu Gazi V.
2nd Euroasia Biochemical Approaches and Technologies Congress (EBAT 2019), Antalya, Turkey, 26 - 29 October 2019, pp.1
- XXXIV. **Vine copula graphical models in the construction of biological networks**
Farnoudkia H., Purutçuoğlu Gazi V.
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- XXXV. **Sparse Modeling and Inference of Networks**
Purutçuoğlu Gazi V.
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- XXXVII. **Selection of optimal threshold value in binary construction of biological networks**
Bahçivancı B., Purutçuoğlu Gazi V.
4th International Conference on Computational Mathematics and Engineering Sciences, Antalya, Turkey, 20 - 22 April 2019, pp.970-981
- XXXVIII. **A new steady-state modeling approach for protein-protein interaction networks**
Ayyıldız Demirci E., Purutçuoğlu Gazi V.
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- XXXIX. **Description of LMARS model under StARS model selection criterion in the description of biological networks**
Bülbül G. B., Purutçuoğlu Gazi V.
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- XL. **Descriptive features of spousal relation in Turkey**

Purutçuoğlu Gazi V., Varol D.

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- XLII. **Detection of hidden patterns in time series data via multiple-time FOD method**
Erkuş E. C., Purutçuoğlu Gazi V.
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- XLIII. **Nested Bayesian Inference Algorithm in the Construction of Time-Course Biological Networks' Data**
Farnoudkia H., Purutçuoğlu Gazi V.
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- XLIV. **Calculation of optimal number of Monte Carlo runs for normally distributed datasets**
Erkuş E. C., Purutçuoğlu Gazi V.
International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 10 - 12 March 2019, pp.1-5
- XLV. **Selection of the Threshold Value in the Construction of Protein-Protein Interaction Networks via Graphical Models**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
International Conference on Data Science and Applications (ICONDATA), 4 - 07 October 2018
- XLVI. **Expectation-maximization algorithm for inference of time series chain graphical model**
Farnoudkia H., Purutçuoğlu Gazi V.
5th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 12 - 16 October 2018, pp.1
- XLVII. **Detection of Abnormalities in Heart Rate Using Multiple Fourier Transforms**
Erkuş E. C., Purutçuoğlu Gazi V.
5th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 12 October 2018, pp.1
- XLVIII. **Model selection in the construction of biological networks in the high dimensional settings**
Bülbül G. B., Purutçuoğlu Gazi V.
5th International Conference on Computational and Experimental Science and Engineering (ICCESEN 2018), Antalya, Turkey, 12 - 16 October 2018, pp.116
- XLIX. **Selection of Optimal Model Selection Criterion for Protein-Protein Interaction Networks**
Ağraz M., Purutçuoğlu Gazi V.
5th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 12 October 2018, pp.1
- L. **Model selection in MARS-constructed biological networks**
Bülbül G. B., Purutçuoğlu Gazi V.
5th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 12 October 2018, pp.252-254
- L. **Model Selection in the Construction of Biological Networks under the Steady-State Conditions**
Bülbül G. B., Purutçuoğlu Gazi V.
International Conference on Data Science and Applications (ICONDATA) 2018, Yalova, Turkey, 04 October 2018 - 07 December 2019, pp.7
- LII. **CONSTRUCTION OF PROTEIN-PROTEIN INTERACTION NETWORKS UNDER STEADY-STATE ACTIVATIONS**
Purutçuoğlu Gazi V.
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- LIII. **Estimation of gynecological cancer networks via target proteins and risk factors**
BAHÇIVANCI B., PURUTÇUOĞLU GAZİ V., PURUTÇUOĞLU E.
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Farnoudkia H., Purutçuoğlu Gazi V.

International Conference on Innovative Engineering Applications (CIEA'2018), Sivas, Turkey, 20 - 22 September 2018, pp.34

- LIV. **Two-stage outlier detection algorithm based on Fourier transform: Real data applications**
Erkuş E. C., Purutçuoğlu Gazi V.
International Conference on Inno- vative Engineering Applications, Sivas, Turkey, 20 September 2018, pp.30-37
- LV. **Feature Selection in Modeling of Chip-Seq Data**
Purutçuoğlu Gazi V., Doğan Dar E.
International Conference on Innovative Engineering Applications (CIEA'2018), Sivas, Turkey, 20 - 22 September 2018, pp.24
- LVI. **Inference of time series chain graphical model**
Farnoudkia H., PURUTÇUOĞLU GAZİ V.
International Conference on Mathematics, 3 - 06 July 2018
- LVII. **Information complexity criterion in the Gaussian graphical model: real data applications**
Bülbül G. B., Purutçuoğlu Gazi V.
International Conference on Mathematics, İstanbul, Turkey, 03 July 2018, pp.1-6
- LVIII. **Inference of time series chain graphical model**
Farnoudkia H., Purutçuoğlu Gazi V.
International Conference on Mathematics, İstanbul, Turkey, 03 July 2018, pp.1-6
- LIX. **Modeling of Breast and Gynecological Cancers Data and Investigating New Biological Findings**
Ağyüz U., Purutçuoğlu Gazi V.
International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 27 June 2018, pp.85
- LX. **Detection of Binding Sites of Chip-seq Data via Hidden Markov Model and Frequentist Inference of Model Parameters**
Doğan Dar E., Purutçuoğlu Gazi V.
International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 27 June 2018, pp.166
- LXI. **A New R Programming Package for the Detection of Outliers in Univariate Time Series Data**
Ağraz M., Ağyüz U., Purutçuoğlu Gazi V.
International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 27 June 2018, pp.165
- LXII. **Is the outlier detection appropriate for protein protein interaction data?**
AYYILDIZ DEMİRCİ E., PURUTÇUOĞLU GAZİ V.
4th International Researchers Statisticians and Young Statisticians Congress, İzmir, Turkey, 28 - 30 April 2018
- LXIII. **Outlier detection methods for time series datasets**
Erkuş E. C., Purutçuoğlu Gazi V.
4th International Researchers, Statisticians and Young Statisticians Congress, İzmir, Turkey, 28 - 30 April 2018, pp.69
- LXIV. **Modeling of gynecological cancers by using allrisk factors**
Bahçivancı B., PURUTÇUOĞLU GAZİ V.
International Conference on Engineering Technologies, 7 - 09 December 2017
- LXV. **Detection of outliers using Fouriertransform**
Akkuş E. C., PURUTÇUOĞLU GAZİ V., AĞRAZ M.
10th International Statistics Congress, 6 - 08 December 2017
- LXVI. **Comparison of various biological network constructions**
PURUTÇUOĞLU GAZİ V.
1st International Conference on Computational and Statistical Methods in Applied Sciences, 9 - 11 November 2017
- LXVII. **Mathematical modeling of gynecological cancers viaquasi target proteins**
PURUTÇUOĞLU GAZİ V., Bahçivancı B.
4rd International Conference on Computational andExperimental Science and Engineering, 04 September 2017 - 08 September 1917
- LXVIII. **TRANSCRIPTOMIC ANALYSIS OF THE HEAT STRESS RESPONSE FOR A COMMERCIAL BAKER'xxS YEAST SACCAROMYCES CEREVISIAE**
YILMAZ R., PURUTÇUOĞLU GAZİ V., VAROL D.

FEMS 2017, Valencia, Spain, 9 - 13 July 2017

- LXIX. **Accuracy assessment of recent gene expression indices via multi-RGX for one-channel microarrays**
Purutçuoğlu Gazi V.
International Conference on Mathematics and Engineering, İstanbul, Turkey, 01 June 2017, pp.16
- LXX. **Steady-state modeling of the biological network via long-tailed symmetric distribution**
Purutçuoğlu Gazi V.
International Conference on Recent Advances in Pure and Applied Mathematics, Aydın, Turkey, 01 June 2017, pp.168
- LXXI. **Is the log-normal density appropriate for one- channel microarray data?**
Varol D., Akal T., Purutçuoğlu Gazi V.
International Conference on Advances in Science, İstanbul, Turkey, 01 June 2017, pp.63-71
- LXXII. **Nonparametric versus parametric models in inference of protein-protein interaction networks**
Purutçuoğlu Gazi V.
International Conference on Advances in Science and Arts , İstanbul, Turkey, 01 June 2017, pp.1
- LXXIII. **Detection of the best model selection criterion in Gaussian graphical model**
Purutçuoğlu Gazi V.
4rd International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 01 June 2017, pp.1
- LXXIV. **Bayesian inference of biological networks whose components are linearly dependent**
Purutçuoğlu Gazi V.
International Conference on Progress in Applied Science, İstanbul, Turkey, 01 June 2017, pp.156-163
- LXXV. **Construction of ovarian cancer pathway via different mathematical models**
Purutçuoğlu Gazi V.
3rd International Researchers, Statisticians and Young Statisticians Congress, Konya, Turkey, 01 June 2017, pp.1
- LXXVI. **Nonparametric versus parametric models in inference of protein-protein interaction networks**
Purutçuoğlu Gazi V.
International Conference on Advances in Science and Arts, İstanbul, Turkey, 01 June 2017, pp.1-8
- LXXVII. **Inference of the Gaussian graphical model via the modied maximum likelihood approach**
Purutçuoğlu Gazi V.
International Conference on Progress in Applied Science, İstanbul, Turkey, 01 June 2017, pp.234-238
- LXXVIII. **Modeling of biochemical networks via a new Graphical approach**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
EMR-Italian Region of IBS Conferans, 8 - 12 May 2017
- LXXIX. **Cancer modeling via biologically validated genes**
Karakelle B. S., PURUTÇUOĞLU GAZİ V., ÜRÜN Y.
International Conference on Mathematics and Engineering, 10 - 12 May 2017
- LXXX. **Empirical Copula in The Detection of Batch Eects**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
INTERNATIONAL WORKSHOP ON MATHEMATICAL METHODS IN ENGINEERING, 27 - 29 April 2017
- LXXXI. **Modeling of various biological networks via LCMARS**
AYYILDIZ DEMİRCİ E., PURUTÇUOĞLU GAZİ V.
International Workshop on Mathematical Methods in Engineering, Ankara, Turkey, 27 - 29 April 2017, pp.48-49
- LXXXII. **Inference of the Gaussian graphical model via the modified maximum likelihood approach**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
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- LXXXIII. **Comprehensive Analyses of Gaussian Graphical Model under Different Biological Networks**
DOKUZOĞLU D., PURUTÇUOĞLU GAZİ V.
3rd INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN 2016), 19 - 24 October 2016
- LXXXIV. **Accelaration of Reversible Jump Markov Chain Monte Carlo Method within Gaussian Copula Graphical Model**

FARNOUDKIA H., PURUTÇUOĞLU GAZİ V.

3rd INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND
ENGINEERING(ICCESEN 2016), 19 - 24 October 2016

- LXXXV. **Bayesian inference of deterministic MAPK-ERK pathway via reversible jumps Monte Carlo method**
Purutçuoğlu Gazi V.
8th International Conference Inverse Problems: Modeling and Simulation, Aydın, Turkey, 01 June 2016, pp.1
- LXXXVI. **Application of stochastic simulations of biological networks under different impulsive scenarios**
Purutçuoğlu Gazi V.
3rd International Conference on Data Mining, Internet Computing, and Big Data, Konya, Turkey, 01 June 2016,
pp.82-91
- LXXXVII. **Degree distribution of real biological networks**
Purutçuoğlu Gazi V.
3rd International Conference on Data Mining, Internet Computing, and Big Data, Konya, Turkey, 01 June 2016,
pp.92-100
- LXXXVIII. **Copulas in random forest algorithm for modelling biochemical networks**
PURUTÇUOĞLU GAZİ V., SEÇİLMİŞ D.
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AĞRAZ M., PURUTÇUOĞLU GAZİ V.
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AYYILDIZ E., PURUTÇUOĞLU GAZİ V.
International Conference on Information Complexity and Statistical Modeling in High Dimensions with Applications,
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- XCI. **Exact stochastic simulation algorithms under different scenarios of biological systems**
PURUTÇUOĞLU GAZİ V., ALTINTAN D.
2nd Researchers-Statisticians and Young Statisticians Congress, 3 - 11 May 2016
- XCII. **A non parametric model in the construction of biological networks**
AĞRAZ M., PURUTÇUOĞLU GAZİ V.
2nd Researchers-Statisticians and Young Statisticians Congress, 3 - 11 May 2016
- XCIII. **Modelling of biological networks via copula Gaussian graphical model and bayesian inference of
model parameters**
PURUTÇUOĞLU GAZİ V., FARNOUDKIA H.
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- XCIV. **Reconstruction of biological networks via MARS model based on various precision matrices**
PURUTÇUOĞLU GAZİ V.
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- XCV. **Performance comparison of stochastic simulation algorithms of biochemical networks with and without
impulses**
PURUTÇUOĞLU GAZİ V., ALTINTAN D.
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- XCVI. **Regression Model for the Construction of Biological Networks via Random Forest Algorithm**
Seçilmiş D., PURUTÇUOĞLU GAZİ V.
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XCIX. Applications of copulas in deterministic models of biochemical networks

Purutçuoğlu Gazi V.

International Conference on Recent Advances in Pure and Applied Mathematics, İstanbul, Turkey, 01 June 2015, pp.1

C. Inference of Biological Networks via Random Forest Algorithm

Purutçuoğlu Gazi V.

7th Bioengineering Congress,, İzmir, Turkey, 01 June 2015, pp.41

CI. Transformations of data in deterministic modellings of biological networks

AĞRAZ M., PURUTÇUOĞLU GAZİ V.

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CII. Transformations of Data in Deterministic Modelling of Biological Networks

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CV. Simulation study for the application of copulas in the Gaussian graphical model

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CVI. Estimation of reaction rates for the MAPK ERK pathway via Western blotting data

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17th International Symposium on the Biology of Actinomycetes, Aydın, Turkey, 01 June 2014, pp.123

CX. Detection of Unreliable measurements in long term time series via data mining techniques case in Turkish climate data

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CXI. Let- 7 cluster as a meta-signature for grade classification in breast cancer

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CXII. Modelling the Extreme Precipitation Data: Case Study from Turkey

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CXIII. Inference of the biological systems via L1-penalized lasso regression

Purutçuoğlu Gazi V.

- 29th Meeting of Statisticians, Budapest, Hungary, 01 June 2013, pp.38
- CXIV. **Comparative analysis of a one-channel microarray dataset by different methods**
Purutçuoğlu Gazi V.
29th Meeting of Statisticians, Budapest, Hungary, 01 June 2013, pp.308
- CXV. **Comparing Clustering Techniques for Real Microarray Data**
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- CXVI. **Detection of seasonal changes in climate data by comparative analysis A case study for Turkey**
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pp.3, Lahore, 2022
- II. **Memory Type Control Charts based on Bayesian Theory: Development and Evaluation**
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- IX. **An application of size bias method**
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- X. **Exon Prediction in Eukaryotic Genes using an Eficient Algorithm**
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PURUTÇUOĞLU V., Project Supported by Higher Education Institutions, Dairesel Veriler İçin Ağ Modellemesinde Parametre Tahmini Ve Model Seçimi, 2023 - Continues

PURUTÇUOĞLU V., ERKUŞ E. C., KÖSTEKÇİ S. M., UĞUR Ö., ŞENOĞLU B., ALTINTAN D., Project Supported by Higher

Education Institutions, Protein protein etkileşim ağlarında yaklaşık stokastik simülasyon algoritmaları, 2020 - 2023

Purutçuoğlu V., TUBITAK Project, İnsan-Makine Uygulamalarında Kullanılacak Fizyolojik İnsan Verileri İçin Temel Alt-Yapısal Yazılım, 2018 - 2022

Purutçuoğlu V., Beycioğlu A., TUBITAK Project, Mühendislik Alanında PROje Eğitimi 2 (MAPRE-2), 2021 - 2021

Purutçuoğlu V., Akbaş O., Company, Sağlıklı Yetişkinlerde COVID-19'un Önlenmesi için Geliştirilmiş Vahşi Tip SARS-CoV-2 veya Alfa Varyantı Spike içeren Virüs Benzeri Parçacık (VLP) Aşısı ile bunların kombinasyonunun Güvenliliği, Etkililiği ve İmmünojenitesinin Değerlendirildiği Randomize, Çift Kör Paralel dozlamalı, Faz II Çalışma (SAVE Çalışması)", 2021 - 2021

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PURUTÇUOĞLU V., AĞRAZ M., Project Supported by Higher Education Institutions, Gaussian grafiksel modelinin ve lasso regresyonuna dayalı grafiksel modelinin uyarlanmış en çok olabilirlik metoduyla model parametre tahmini, 2017 - 2019

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Purutçuoğlu Gazi V., EU Framework Program Project, PATHOSYS - New Algorithms for Host Pathogen Systems Biology, 2010 - 2015

PURUTÇUOĞLU GAZİ V., TUBITAK Project, Meme kanserinin histolojik ve patolojik alt tiplerinin meta analiz yöntemine dayalı miRNA imzaları ile sınıflandırılması, 2012 - 2013

PURUTÇUOĞLU GAZİ V., TUBITAK Project, Veri Madenciliği Yöntemleri ile Türkiye İklim Bölgelerinin Yeniden Belirlenmesi ve Yağış Tahmin Modellerinin Geliştirilmesi, 2009 - 2011

Batmaz İ., Yozgatlıgil C., İyigün C., Purutçuoğlu Gazi V., Köksal G., Project Supported by Higher Education Institutions, Veri Madenciliği Yöntemleri ile Türkiye İklim Bölgelerinin Yeniden Belirlenmesi, 2010 - 2010

Other International Funding Programs, Stochastic modelling and statistical inference of gene regulatory pathways integrating multiple sources of data, 2005 - 2006

Activities in Scientific Journals

International Journal of Industrial Engineering and Operational Research, Committee Member, 2018 - Continues
Data Science and Applications, Advisory Committee Member, 2018 - Continues
Journal of Biostatistics - Turkish Clinics, Advisory Committee Member, 2010 - Continues
BMC BIOINFORMATICS, Committee Member, 2022 - 2022
BIOMETRICS, Assistant Editor/Section Editor, 2022 - 2022
BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021
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BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021
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Memberships / Tasks in Scientific Organizations

International Biometrics Society-Award Fund Committee, Chairman of the Board, 2022 - 2022, United States Of America
Eastern Mediterranean Region of the International Biometric Society, Country Representative, 2021 - 2022, United States Of America
International Biometrics Society, Executive Board Member, 2020 - 2022, United States Of America
International Biometrics Society, Country Representative, 2020 - 2021, United States Of America
International Biometric Society, Awards Fund Committee Member, Member of Science Committee, 2016 - 2019

Scientific Refereeing

BIOMEDICAL SIGNAL PROCESSING AND CONTROL, SCI Journal, December 2022
JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, December 2022
TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, Middle East Technical University, Turkey, December 2022
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JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, SCI Journal, March 2022

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TUBITAK Project, 1002 - Quick Support Program, Middle East Technical University, Turkey, March 2022

BMC GENOMICS, SCI Journal, February 2022

TUBITAK Project, 2236 - Program for Supporting International Researchers, Middle East Technical University, Turkey, February 2022

SCIENTIFIC REPORTS, SCI Journal, December 2021

BIOMETRICS, SCI Journal, December 2021

TUBITAK Project, 1002 - Quick Support Program, THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TÜRKİYE, Turkey, December 2021

BMC BIOINFORMATICS, SCI Journal, November 2021

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BIOMETRICS, SCI Journal, November 2021

JOURNAL OF APPLIED STATISTICS, SCI Journal, October 2021

TURKISH JOURNAL OF MATHEMATICS, SCI Journal, October 2021

TURKISH JOURNAL OF MATHEMATICS, SCI Journal, October 2021

JOURNAL OF DYNAMICS AND GAMES, Journal Indexed in ESCI, October 2021

AN INTERNATIONAL JOURNAL OF OPTIMIZATION AND CONTROL: THEORIES & APPLICATIONS (IJOCTA), Journal Indexed in ESCI, September 2021

BIOMETRICS, SCI Journal, August 2021

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BMC BIOINFORMATICS, SCI Journal, August 2021

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2021

BIOMETRICS, SCI Journal, July 2021

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OPEN CHEMISTRY, SCI Journal, June 2021

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Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Türkiye Sağlık Enstitüleri Başkanlığı, Turkey, June 2021

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JOURNAL OF DYNAMICS AND GAMES, Journal Indexed in ESCI, May 2021

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Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, March 2021

JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, February 2021

Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, December 2020

JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, December 2020

Foundations of Computing and Decision Sciences, Other Indexed Journal, November 2020

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ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, November 2020

BIOMETRICS, SCI Journal, November 2020

Communications Faculty of Sciences University of Ankara Series A1-Mathematics and Statistics , Journal Indexed in ESCI, November 2020

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Health Institutes of Turkey, Turkey, November 2020

Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, September 2020

ANNALS OF OPERATIONS RESEARCH, SCI Journal, August 2020

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KAHRAMANMARAŞ SÜTÇÜ İMAM ÜNİVERSİTESİ TARIM VE DOĞA DERGİSİ, Other Journals, May 2020
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, May 2020
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JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES C-APPLIED STATISTICS, SCI Journal, February 2020
TUBITAK Project, 1002 - Quick Support Program, The Scientific and Research Council of Turkey, Turkey, February 2020
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, SCI Journal, January 2020
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Cogent Mathematics and Statistics, Other Indexed Journal, August 2018

The International Symposium on Health Informatics and Bioinformatics , Conference Paper (Full Text), August 2018

The 4th International Conference on Fuzzy Systems and Data Mining, Conference Paper (Full Text), July 2018

Characterization of coding and noncoding RNA interactions through topological descriptors, Conference Paper (Full Text), July 2018

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Orta Doğu Teknik Üniversitesi, Turkey, July 2018

TUBITAK Project, 1005 - National New Ideas and Products Research Support Program, Orta Doğu Teknik Üniversitesi, Turkey, July 2018

TUBITAK Project, 1005 - National New Ideas and Products Research Support Program, Orta Doğu Teknik Üniversitesi, Turkey, July 2018

Journal of Scientific Research and Reports, Other Indexed Journal, June 2018

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Project Supported by Other Official Institutions, Orta Doğu Teknik Üniversitesi, Turkey, June 2018

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JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, SCI Journal, April 2018

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Archives of Current Research International, Other Indexed Journal, January 2018

Journal Of Biostatistics-Turkish Clinics, Other Indexed Journal, January 2018

Scientific Consultations

Monitor Medikal Araştırma ve Danışmanlık Şirketi, Scientific Consultancy, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, Turkey, 2022 - 2022

Tasks In Event Organizations

Purutçuoğlu Gazi V., 15th International Conference on Computational Intelligence methods for Bioinformatics and Biostatistics , Scientific Congress, Portugal, Eylül 2018

Metrics

Publication: 225

Citation (WoS): 160

Citation (Scopus): 177

H-Index (WoS): 6

H-Index (Scopus): 6

Congress and Symposium Activities

XII Symposium of Polish Bioinformatics Society , Invited Speaker, Krakow, Poland, 2019

COSTNET Meeting, Working Group, Warszawa, Poland, 2018

Non Academic Experience

International Biometric Society (IBS)

METU

International Biometric Society (IBS)

International Biometric Society (IBS)

International Biometric Society (IBS)

International Biometric Society (IBS)

Groningen University

University of Groningen

METU

Lancaster University

METU

Glasgow University

METU