Mitra Ghanbarzadeh

Personal Details

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Education

2003-2007 Mazandaran University Babolsar, Iran	Bachelor of Science on Statistics	Project Title: Estimation of extreme value distribution parameters in type II censored data
2007-2009 Amirkabir University Of Technology Tehran, Iran	Master of Science on Mathematical Statistics	Project Title: Comparison of stable distributions with their Skewed distributions
2009-2015 Amirkabir University Of Technology Tehran, Iran	PhD of Statistics	Project Title: Using wavelet analysis in nonstationary processes and periodically correlated processes

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Work Experience

August 2018 - Present	Assistant Professor Insurance Research Center, Tehran, Iran
September 2019 - Present	Head of Personal Insurance Department Insurance Research Center, Tehran, Iran
February 2021 - April 2022	Responsibility of the Committee for the Iran's Life Insurance Development Studies Insurance Research Center, Tehran, Iran
December 2020- December 2021	Scientific Secretary of the 28th National Insurance and Development Conference of Iran Insurance Research Center, Tehran, Iran
2014 - Present	Teacher of University Amirkabir University Of Technology, Shahid Beheshti University, Alzahra University, Kashan University, Iran
2020-Present	Supervisor/Advisor of M.S and PhD Students

Field of Specialized Studies

Life and Health insurance, Time series and stochastic processes, Statistical analysis, Non-parametric analysis and wavelet analysis, Actuarial science, Data mining and machine learning, Wearable tools in health status assessment, Takaful

Software Skills

R, Matlab, SPSS, Lisrel, Minitab, …

Proficiency

Actuarial Computation of Life Insurance
Machine Learning Application in Insurance
Time Series Analysis
Wavelet Analysis
Actuarial Computation of Takaful
Measuring and Analyzing Policyholders
Risk Classification

Research Papers

- Cross-Sectional Estimation of Loss Reserve for Cargo Insurance Market: The Case of Cargo Insurance in Iran
  P. Ghonji, Gh. Mahdavi, M. Ghanbarzadeh
  Journal of Mathematics and Modeling in Finance, 2024
- Determining the characteristics and levels of supplementary health insurance and estimating consumers' willingness to pay

N. Hozarmoghadam, M. Ghanbarzadeh, M. Bazyar, M. Abbasi
Iranian Journal of Insurance Research, 2024, 13 (3) (In Persian)

- Pricing Risk Contribution of General Takaful by Spatial Generalized Linear Mixed Models on the Level of Tariff Cells
  R. Hajipour Farsangi, Gh. Mahdavi, M. Jafari Khaledi, M. Büyükyazıcı, M. Ghanbarzadeh
  International Journal of Islamic and Middle Eastern Finance and Management, 2024

- Application of Long Tail Theory in Digital Bookstores
  Sara Ferdowsizadeh, A. Noruzi, M. Ghanbarzadeh, K. Zadnajaf
  Library and Information Sciences Journal, 2024 (In Persian)

- Evaluation of Economic Variables on Pension Fund Performance of Selected Countries
  M. Ghanbarzadeh, N. Hozarmoghadam, A. Hamzeh
  Journal of Mathematics and Modeling in Finance, 2024

- Measuring the acceptance rate of Usage-Based Insurance (UBI) based on statistical methods (case study: Saman Insurance Company)
  A. Hamzeh, M. Ghanbarzadeh
  Journal of Mathematics and Modeling in Finance, 2024

- Investigating the level of satisfaction of policyholders with supplementary insurance health in Iran
  A. Hamzeh, N. Hozarmoghadam, M. Ghanbarzadeh
  BMC Health Services Research Journal, 2023

- Analysis of Demand for Takaful Insurance: A Case Study in Iran
  A. Hamzeh, M. Ghanbarzadeh
  Journal of Islamic Accounting and Business Research, 2023

- Pathology of group health insurance pricing in the Iran's insurance industry
  M. Ghanbarzadeh, A. Hamzeh, N. Hozarmoghadam
  Journal of Strategic Management Studies, 2023 (In Persian)

- Evaluating the level of insurance policyholders' satisfaction with payment of loss in supplementary health insurance
  A. Kohansal, M. Ghanbarzadeh
  Journal of Strategic Management Studies, 2023 (In Persian)

- Identification and ranking factors affecting audit quality in the view of related groups in Iran using confirmatory factor analysis
  N. Hakamipour, M. Ghanbarzadeh
  Iranian Management Accounting Association Journal, 2023

- Identifying the actions and requirements needed for digital transformation in the life insurance
  M. Ghanbarzadeh, R. Fathi
  Journal of Investment Knowledge, 2022, 56 (In Persian)

- Investigating the churn of life insurance customers using data mining methods (A Case Study: One of the Iran's insurance companies)
  H. Ghorbani, M. Ghanbarzadeh, R. Ofoghi
  Iranian Journal of Insurance Research, 2022, 11 (4), 551-566 (In Persian)

- The effects of climate change risk on the insurance industry
  A. Hamzeh, M. Ghanbarzadeh, N. Hozarmoghadam
  Journal of Investment Knowledge, 2023, *12*(46), 1-23 (In Persian)

- Consequences of sanctions on the insurance industry
  A. Hamzeh, N. Hozarmoghadam, M. Ghanbarzadeh
  Quarterly Journal of Fiscal and Economic Policies, 2022, 10 (38), 21-40 (In Persian)
- Investigating the effects of the coronavirus outbreak on life, health and travel insurance
  N. Hozar Moghaddam, M. Ghanbarzadeh, A. Hamzeh, M. Ghafoor Boroujerdi
  Iran J Health Insur, 3 (3), 148-61 (In Persian)
- Wearable technologies and internet of things in life and health insurance
  M. Ghanbarzadeh, A. Hamzeh, N. Hozarmoghadam
  Iranian Journal of Health Insurance, 2021, 4 (1), 2-13 (In Persian)
- A Novel Wavelet Artificial Neural Networks Method to Predict Non-stationary Time Series
  M. Ghanbarzadeh, M. Aminghafari
  Communications in statistics-theory and methods, 2020, 49(4)
- A new hybrid-multiscale SSA prediction of non-stationary time series
  M. Ghanbarzadeh, M. Aminghafari
  Fluctuation and Noise Letters, 2016, 15 (01), 1650005
- Prediction of periodically correlated processes by wavelet transform and multivariate methods with applications to climatological data
  M. Ghanbarzadeh, M. Aminghafari
  Theoretical and Applied Climatology, 2015, 120, 433-444
- A Wavelet Characterization of Continuous-Time Periodically Correlated Processes with Application to Simulation
  M. Ghanbarzadeh, M. Aminghafari
  Journal of Time Series Analysis, 2016, 37 (6), 741-762
  <u>Submitted Papers:</u>
- Asset-liability management for with-profit life insurance policies: A novel multi-stage stochastic programming model
  F. Hooshmand Khaligh, M. Ghanbarzadeh
  <u>Submitted</u> to *Journal of Mathematics and Modeling in Finance,* 2024
- Clustering of Countries based on Human Development Indices and Insurance Analysis of Clusters
  M. Ghanbarzadeh, A. Hamzeh, N. Hozarmoghadam
  <u>Submitted</u> to *Indian Journal of Human Development*, 2023
- Surrender Analysis of Life Insurance in Iran at Two Micro-Corporate and Macroeconomic Levels
  M. Ghanbarzadeh, N. Hozarmoghadam
  <u>Submitted</u> to *Risk Management and Insurance Review,* 2024
- Investigating the level of awareness of UBI car insurance
  A. Hamzeh, M. Ghanbarzadeh
  <u>Submitted</u> to *Journal of Investment Knowledge*, 2024 (In Persian)
- Investigating the impact of some Islamic financial, economic, and innovation indicators on GDP in selected countries
  A. Hamzeh, M. Ghanbarzadeh
  <u>Submitted</u> to *Journal of Islamic Accounting and Business Research*, 2024
- Spatial Modeling of cliams in third-party car insurance of Iran with the help of copula function

V. Tadayon, M. Ghanbarzadeh

Research Projects

- Studying the rating and risk management systems of group health insurance
  Insurance Research Center, 2024, Tehran, Iran
- Investigating the Possibility of Implementing Car Usage-Based Insurance (UBI) in Saman Insurance Company
  Insurance Research Center and Saman Insurance Company, 2023, Tehran, Iran
- Economic redesign of the Pension Funds
  Insurance Research Center, 2023, Tehran, Iran
- Examining the new activity models of medical insurance companies in the world (managed care systems)
  Insurance Research Center, 2024, Tehran, Iran
- Study and review the role and applications of blockchain in the development of life insurance
  Insurance Research Center and Saman Insurance Company, 2024, Tehran, Iran
- Preparation of multi-decrement life table for the Iran's insurance industry
  Insurance Research Center, 2024, Tehran, Iran
- Identifying and categorizing the types of risks of research projects and providing solutions
  Insurance Research Center, 2024, Tehran, Iran
- Examining the experience of selected countries in life tables used in life insurance and annuity
  Insurance Research Center, 2023, Tehran, Iran
- Determining the features and levels of supplementary health insurance and estimating consumers' willingness to pay
  Insurance Research Center and Dey Insurance Company, 2023, Tehran, Iran
- Investigating the surrender of cash-value life insurance and analyzing the factors affecting it
  Insurance Research Center, 2022, Tehran, Iran
- Accelerated underwriting processes in life insurance
  Insurance Research Center, 2022, Tehran, Iran
- A review of blockchain applications in life and health insurance
  Insurance Research Center, 2022, Tehran, Iran
- Customer loyalty indicators in life insurance
  Insurance Research Center, 2022, Tehran, Iran
- Securitization of life insurance
  Insurance Research Center, 2022, Tehran, Iran
- Review and evaluation of Joint life insurance and its expansion in Iran
  Insurance Research Center, 2021, Tehran, Iran
- Examining solutions to reduce the impact of inflation on life insurance
  Insurance Research Center, 2021, Tehran, Iran
- The effects of the spread of the corona virus on the economy and the insurance industry of the world and Iran (report of the fourth quarter of 2020)
  Insurance Research Center, 2021, Tehran, Iran

- Requirements for determining the technical interest rate in life insurance products
  Insurance Research Center, 2020, Tehran, Iran
- The effects of the spread of the corona virus on life insurance; Challenges and solutions
  Insurance Research Center, 2020, Tehran, Iran
- Types of life insurance and the challenges of its development in Iran with the approach of non-savings life insurance
  Insurance Research Center, 2019, Tehran, Iran
- Examining the results of payment of legal fees for third party car insurance
  Insurance Research Center, 2017, Tehran, Iran

Books

- Life Insurance: Basic Principles and Concepts (in Persian)
  F. Atatalab, M. Ghanbarzadeh
  Insurance Research Center, 2023, Tehran, Iran.
- Big data for insurance companies (Marine Corlosquet-Habart and Jacques Janssen, *Trans.*)
  M. Ghanbarzadeh, N. Hozarmoghadam, A. Hamzeh
  Insurance Research Center, 2023, Tehran, Iran.
- Long-term care in Europe (Ulrich Becker and Hans-Joachim Reinhard, *Trans.*)
  N. Hozarmoghadam, A. Hamzeh, M. Ghanbarzadeh
  Insurance Research Center, 2023, Tehran, Iran.
- Improving the Takaful Sector in Islamic Countries (COMCEC Coordination Office, *Trans.*)
  Y. Mahmoodian, M. Ghanbarzadeh
  Insurance Research Center (In Press), 2023, Tehran, Iran.
- Book Chapter "Analysis of Acceptance's Level of Takaful Products in Iran" in Islamic Sustainable Finance, Law and Innovation
  M. Ghanbarzadeh, A. Hamzeh, N. Hozarmoghadam
  Springer Nature Switzerland, 2023.
- Book Chapter "Analysis of Acceptance's Level of Takaful Products in Iran" in Islamic Sustainable Finance, Law and Innovation
  A. Hamzeh, M. Ghanbarzadeh
  Springer Nature Switzerland, 2023.
- Natural Catastrophes Insurance Cover. A Diversity of Systems (Consorcio De Compensacion De Seguros, *Trans.*)
  A. Hamzeh, M. Ghanbarzadeh, N. Hozarmoghadam, F. Banimustafa Arab
  Insurance Research Center, 2023, Tehran, Iran.
- Competing Risks and Multistate Models with R (Jan Beyersmann, Arthur Allignol and Martin Schumacher, *Trans.*)
  Sh. Shoaee, M. Ghanbarzadeh
  Insurance Research Center, 2023, Tehran, Iran.

Conference Paper

- Data Mining Application in Churn Prediction of Life Insurance Customers
  The 8th FINACT-IRAN International Conference on Financial and Actuarial Mathematics, Kharazmi University, Iran, 2023
- Investigating the impact of Islamic financial development and insurance on economic growth
  The 30th National (11th International) Insurance and Development Conference, Insurance Research Center, Iran, 2023 (In Persian)
- Investigating the impact of Islamic Financial Development and Innovation on Takaful
  The 30th National (11th International) Insurance and Development Conference, Insurance Research Center, Iran, 2023
- Takaful: pricing risk contribution of general takaful by spatial modeling of frequency and severity of claims
  The 30th National (11th International) Insurance and Development Conference, Insurance Research Center, Iran, 2023
- Evaluation of the level of awareness and acceptance of takaful products in Iran
  The 29th National (10th International) Insurance and Development Conference, Insurance Research Center, Iran, 2022 (In Persian)
- Investigating factors affecting the demand for takaful insurance in Iran and prioritizing it
  The 29th National (10th International) Insurance and Development Conference, Insurance Research Center, Iran, 2022 (In Persian)
- Analysis of insurance performance in Iran' provinces using hierarchical clustering
  16th Iranian Statistics Conference, Mazandaran University, Iran, 2022
- Analysis of Acceptance' Level of Takaful Products in Iran
  10th ASEAN International Conference on Islamic Finance, Malaysia, 2023
- Identifying and ranking factors affecting the demand for Takaful insurance in Iran
  10th ASEAN International Conference on Islamic Finance, Malaysia, 2023
- Joint life insurances; calculation of insurance premiums and common death probabilities in the country's insurance industry
  Second Iranian Actuarial Conference, Shahid Beheshti University, Iran, 2022
- Digital transformation in the development of life insurance; Identification of required actions and requirements
  The 28th National Insurance and Development Conference, Insurance Research Center, Iran, 2022
- Modelling Joint Annuity Insurance using Kernel Copula
  The 6th seminar on copula theory and its applications, Alzahra University, 2021
- Investigating the effectiveness of life insurance in the face of the Covid-19 pandemic
  The 27th National Insurance and Development Conference, Insurance Research Center, Iran, 2021
- Combination of Wavelet Transform and Artificial Neural Network with Prediction Purpose
  M Ghanbarzadeh
  The Second National Congress on Mathematics and Statistics, Gonbad Kavoos University, Iran, 2019
- A Survey on Data Mining Methods for Customer Churn Prediction in Insurance Industry
  M Ghanbarzadeh, H Asma
  The 6th FINACT-IRAN National Conference on Financial and Actuarial Mathematics, IPM, 2019

- A Novel Prediction Method for Non-stationary Time Series Using SSA and Wavelets
  M Ghanbarzadeh, M Aminghafari
  13th Iranian Statistics Conference, Kerman University, Iran, 2016
- Prediction of High Dimensional Data Using Wavelets and Principal Components Analysis
  M Ghanbarzadeh, M Aminghafari
  First International Workshop on Big Data Mathematical and Statistical Tools …, Amirkabir University of technology, Iran, 2016
- Multiscale SSA Prediction of Non-stationary Time Series
  M Ghanbarzadeh, M Aminghafari
  14th Workshop on Probability and Stochastic Processes, Institute for Advanced Studies in Basic Sciences, Iran, 2013
- Hypothesis Testing of Periodically Correlated Processes by Wavelet Cyclic Autocorrelation and Subsampling Methodology
  M Ghanbarzadeh, M Aminghafari
  8th IMS World Congress on Probability and Statistics, Bernoulli Association and American Center for Mathematical Statistics, Istanbul, 2011
- Consistency of Subsampling Estimator for Wavelet Cyclic Autocorrelation of Periodically Correlated Processes
  M Ghanbarzadeh, M Aminghafari
  11th Iranian Statistics Conference, Iran University of Science and Technology, Iran, 2011
- A New Representation for Periodically Correlated Processes Based on Wavelet Function
  M Ghanbarzadeh, M Aminghafari
  10th WorkShop on Probability and Stochastic Processes, Mazandaran University, Iran, 2011
- The Comparison of Skewed Stable Distributions with Skew Stable Distributions
  M Ghanbarzadeh, A Mohammadpour
  10th Statistics Conference, Tabriz University, Iran, 2009

Honor and Awards

- Top researcher of Insurance Research Center, 2022.
- Top leader of the specialized desk of the Insurance Research Center, 2021.