BAŞAK BULUT KARAGEYİK

Department of Actuarial Sciences
Hacettepe University
06800 Beytepe/ANKARA/TURKEY
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CURRENT POSITION

Assistant Professor (Assit. Prof. Dr.), Department of Actuarial Sciences, Hacettepe University

Affiliated Faculty Member, Institute of Applied Mathematics, Middle East Technical University,

Registered Actuary, Republic of Turkey Prime Ministry Undersecretariat of Treasury,
Registration number: 122.

FIELDS OF INTERESTS

- Non-life Insurance Mathematics
- Risk Theory
- Reinsurance
- Decision Making under Uncertainty
- Compensation for Loss of Income and Earnings (Death/Disability)
- Actuarial Consultancy

CAREER HISTORY

Since March 2022-.. **Affiliated Faculty Member** Institute of Applied Mathematics, Middle East Technical University,Ankara, Turkey

Since March 2018-.. **Assistant Professor** Department of Actuarial Sciences,Hacettepe University, Ankara, Turkey

October 2015-March 2018 **Research Assistant, PhD** Department of Actuarial Sciences, Hacettepe University, Ankara, Turkey

Dec, 2008- October 2015 — **Research Assistant,** Department of Actuarial Sciences,Hacettepe University Ankara, Turkey

Sept, 2007 — **Intern**, Garanti Pension and Life Company, General Directorate,Actuary and Technical Department, Istanbul

Aug, 2007 — **Intern**, Finans Insurance Company,Central Anatolian Regional Directorate, Ankara

June,2007 — **Intern**, Republic of Turkey Prime Ministry, Undersecretaries of Treasury Insurance Supervisory Board, Ankara

July,2006 — **Intern**, Oyak Bank, Cetin Emec Branch Bank,Corporate-commercial Loan Department and Private Pension System Department ,Ankara

EDUCATION

May 2017- September 2017 — **Visiting Postdoctoral Researcher** University of Lausanne, Faculty of Business and Economics (HEC) Department of Actuarial Science, Lausanne, Switzerland
Postdoctoral research with Prof. Dr. Hansjörg Albrecher

March 2014– September 2014 — **Visiting PhD Researcher** University of Melbourne, Department of Economics, Centre for Actuarial Studies Melbourne, Avustralia
PhD research with Prof. Dr. David C. M. Dickson

February 2011– October 2015 — **PhD** Actuarial Sciences Hacettepe University, Institute of Science, Department of Actuarial Sciences
Thesis: Optimal Reinsurance under Competing Benefit Criteria
Supervisor: Assoc. Prof.Dr. Şule Şahin and co-advisor: Prof. Dr. David C. M. Dickson

October 2008– February 2011 — **MSc** Actuarial Sciences Hacettepe University, Institute of Science, Department of Actuarial Sciences
Thesis: Ruin Probability in Heavy Tailed Risk Models Supervisor: Prof. Dr. Cenap Erdemir

2003-2008 — **BSc** Actuarial Sciences Hacettepe University, Faculty of Science Department of Actuarial Sciences

PUBLICATIONS

Journal Papers

Şahin Ş., **Karageyik, B.B.**, (2018), "The Force of Ruin", Sigma Journal of Engineering and Natural Sciences, 36(2), 563-575.
(http://eds.yildiz.edu.tr/sigma/ContentDetails?Volume=36&IssueNumber=2)

Karageyik, B.B., Şahin Ş. (2017), "Determination of Optimal Retention Level Based on Different Measures", Journal of Risk and Financial Management, 10(1), 4.
(http://www.mdpi.com/1911-8074/10/1/4/htm).

Şahin Ş., Karabey, U., **Karageyik, B.B.**, Nevruz E., Yıldırak, Ş.K., (2016), "Türkiye'de Buğday Bitkisel Ürün Sigortası İçin Aktüeryal Prim Hesabı", Turkish Journal of Agricultural Economics, 22, 2, 37-47.
(http://journal.tarekoder.org/archive/2016/2016_02_05.pdf)

Karageyik, B.B., Şahin Ş. (2017), "Optimal Retention Level for Infinite Time Horizons under MADM", Risks, 5(1), 1, published online on 27 December 2016.
(http://www.mdpi.com/2227-9091/5/1/1)

Karageyik, B.B., Şahin Ş. (2017), "Optimal Barrier Level on Modified Surplus Process" , Journal of Statistical Computation and Simulation, published online on 1 January 2017.
(http://www.tandfonline.com/doi/full/10.1080/00949655.2016.1272117)

Karageyik, B.B., Şahin Ş. (2016), "A Review on Optimal Reinsurance under Ruin Probability Constraint" Journal of Statisticians: Statistics and Actuarial Sciences, Vol 9, No:1.
(http://www.istatistikciler.org/dergi/IstDer160103.pdf)

Karageyik, B.B., Dickson D.C.M., (2016), "Optimal Reinsurance under Multi Attribute Decision Making" Annals of Actuarial Science, Vol 10, No:1.
(http://journals.cambridge.org/abstract_S1748499515000123)

Arık, A., **Bulut, B.**, Sucu, M., (2013), "Measuring Financial Risks with Extreme Value Theory", Anadolu University Journal of Science and Technology-A Applied Sciences and Engineering, Vol 14, No:2, 119- 134 pp.
(http://btda.dergi.anadolu.edu.tr/yonetim/icerik/makaleler/73-published.pdf)

Bulut B., Erdemir C, (2012), "Calculation of ruin probability by simulation method with heavy tail loss models: An compulsory traffic insurance example" Journal of Statisticans, Vol 5, No:1, 1-13 pp.
(http://www.istatistikciler.org/dergi/IstDer120101.pdf)

Bulut B., Erdemir C, (2011), "Ruin probability in heavy tailed risk models", Journal of Statisticians, Vol 4, No:2, 39-56 pp.
(http://www.istatistikciler.org/dergi/IstDer110201.pdf)

Books

Şahin, Ş., **Bulut Karageyik, B.**, Nevruz, E., Şimşek, G., 2022, Aktüerya Bilirkişiliği: İş Göremezlik Tazminatı Hesaplama Yöntemleri, Aktüerya Teorisi - Finans Teorisi - Yargı Uygulamaları (Actuarial Expert Witnessing: Compensation Calculations for Loss of Income Claims, Actuarial Theory - Financial Theory - Trial Practice), Ankara, Seçkin Kitabevi, 2. Edition (Updated and Extended) (1. Edition, 2021).

Şahin, Ş., Nevruz, E., **Bulut Karageyik, B.**, Şimşek, G., 2022, Aktüerya Bilirkişiliği: Destekten Yoksun Kalma Tazminatı Hesaplama Yöntemleri, Aktüerya Teorisi - Finans Teorisi - Yargı Uygulamaları (Actuarial Expert Witnessing: Compensation Calculations for Wrongful Death Claims, Actuarial Theory - Financial Theory - Trial Practice), Ankara, Seçkin Kitabevi, 2. Edition (Updated and Extended) (1. Edition, 2020).

PROCEEDINGS & POSTERS

Karageyik, B.B., Karabey, U., "A Perspective on analysis of loss ratio and Value at Risk under Aggregate Stop Loss Reinsurance", 10th International Statistics Congress, Ankara, TURKEY, 6-8 December 2017 (International, Proceeding)

Karageyik B.B., Şahin. Ş., "Comparative evaluation of multi-attribute decision making methods on determination of optimalreinsurance.", ASTIN/ AFIR-ERM Colloquia 2017, Panama City, Panama, 20- 24 August 2017 (International, Proceeding)

Şahin. Ş., **Karageyik. B.B.**, Conditional Time of Ruin and Reinsurance, International Researches, Statisticians and Young Statisticians Congress, Konya, 24-26 May, 2017 (International, Proceeding)

Karageyik B.B, Şahin. Ş., "Determination of the Optimal Retention Level Based on Different Measures ", Conference: Innovations in Insurance, Risk- & Asset Management, April 5-7, 2017, Munich, Germany (International, Proceeding)

Karageyik B.B., Şahin. Ş., "Optimal barriers in a modified surplus process ", University of Lausanne,HEC Lausanne, The Faculty of Business and Economics, Department of Actuarial Science (DSA), DSA Seminars, 01.03. 2017, as an invited speaker, Lausanne, Switzerland.

Şahin. Ş., **Karageyik. B.B.**, "A Hazard Rate Function for the Time of Ruin" ICASQF 2016 : 18th International Conference on Actuarial Science and Quantitative Finance , December 1-2, 2016, Amsterdam, The Netherlands (International, Proceeding)

Karageyik B.B., "Optimal Reinsurance Under Multiple Attribute Decision Making", Middle East Technical University (METU), Institute of Applied Mathematics (IAM) 2016 Colloquium, 01.11.2016 , Ankara, Turkey, as an invited speaker.

Karageyik. B.B., Şahin. Ş. "Optimal Barrier on Modified Surplus Process" 9th Conference in Actuarial Science & Finance on Samos, May 18 - 22, 2016, Samos, Greece, as speaker (International, Proceeding)

Karageyik. B.B., Şahin. Ş. "Estimation of infinite time ruin probability under the translated gamma process approximation" 2nd National Insurance and Actuary Conference, 17-18 Sep 2015, Ankara, Turkey as speaker. (National, Proceeding)

Karageyik. B. B., Dickson, D.C.M. "Optimal Reinsurance Under Competing Benefit Criteria", 19th International Congress on Insurance: Mathematics and Economics (IME) 24-26 June 2015 Liverpool, UK. as speaker (International, Proceeding)

Karageyik. B. B., Şahin Ş., "The Translated Gamma Process and Finite Time Ruin Probability: An Application of Turkey Compulsory Traffic Insurance", 8th International Statistics Congress, November 27-30, 2013, Antalya, as speaker (International, Proceeding)

Arık, A., **Bulut, B.**, Ozkok, E., Sucu, M.,"A Bayesian Approach to Modelling Turkish Mortality Rates and Pricing a Longevity Bond", 26th European Conference on Operational Research, July 1-4, 2013, Rome, as speaker (International, Proceeding)

Arık, A., **Bulut, B.**, Ozkok, E., Sucu, M., "The Lee-Carter Method and Poisson Log-Bilinear Model: An Application to Turkish Census Data", 25th European Conference on Operational Research, July 8-11,2012, Vilnius, Lithuania (International, Proceeding)

Bulut, B. and Erdemir, C., "Calculation of Ruin Probability with Simulation Technique in Heavy Tailed Actuarial Risk Models: Motor Insurance Application", (May 2011), 12th International Symposium on Econometrics Operations Research and Statistics, Denizli, Turkey (International, Proceeding)

Bulut, B. and Erdemir, C., "Heavy Tailed Distributions in Actuarial Applications", May 2011, 7th International Statistics Congress, Antalya, as speaker (International, Proceeding)

Turkey. Şentürk Y., Karaman F., **Bulut B**. and Tuzel S., "Stochastic Modelling of Hybrid Pension Scheme and application in Turkey", 6th Statistical Congress, (May 2009), Antalya, as speaker (National, Proceeding)

SEMINARS & TRAINING

IFRS 17 Conference (International Financial Reporting Standards 2017) (as a member) Conference held by Actuarial Society of Turkey, İstanbul, Turkey, 13 September 2018.

Motor Third Part Liability (MTPL) Insurance and Private Pensions (as a member) IAA Regional Seminar lead by Eurasia and Middle East Subcommittee, International Actuarial Association, İstanbul, Turkey, 9-10 November 2017.

Building a Canal from Data to Improved Results Workshop lead by Willis Towers Watson, Panama City, Panama, 25 August 2017.

30th International Summer School of the Swiss Association of Actuaries 2017, Insurance Management: Trends, Challenges and Solutions, University of Lausanne, Switzerland, 6th - 9th June 2017

Lausanne-Lyon University meeting 2017. Lyon, France. July, 2017.

Reserving in Life and Non-Life Insurance, European Actuarial Academy, (June 3 - 5 2010), Istanbul, Turkey.

Analysis of Non-linear Time Series Theory-I) Analysis of Non-linear Time Series Practice-I) Pamukkale University Economy Summer Symposium-VIII (June 29th-August 14th 2009), Denizli,

Prof. Dr. Angelika May, Seminar on "Asset Liability Models for Life Insurances", (April 22, 2009), METU, Turkey.

SAS Enterprise Guide Training conducted by Department of Statistics, 11-12 September, 2013. Hacettepe University.

PROJECTS

Actuarial Consultancy for Export Credit Insurance Researcher, Turk Eximbank (Export Credit Bank of Türkiye), May 2022-January 2023

Actuarial Valuation of Several Governmental Institutions and foundations.

Actuarial Congress Evaluation of the Efficiency of Agricultural Insurance and Management April 2015-March 2016 of Natural Disasters in Agriculture Researcher, National Project

Member of Executive Committee of 2nd National Insurance and 17-18 September 2015

Construction of Turkey Life and Life Annuity Table Project Feb 2009-Apr 2010

Giving Actuarial Education to Employees of Social Security Institution Feb, 2010

Financing Education and Training Expenditure Management 1st Step: June– July 2007 Information System 2nd Step: Nov 2007 Turkey Field Research, TÜBİTAK, Republic of Turkey Ministry of National Education

GRANTS, HONOURS & AWARDS

Hacettepe Universtiy, Postdoctoral Research Fellowship Program - Visiting Postdoctoral Researcher at Lausanne University, Department of Actuarial Sciences, Lausanne, Switzerland, May - Sept 2017

Best Presentation Award in the ICASQF 2016 : 18th International Conference on Actuarial Science and Quantitative Finance, Amsterdam, Netherland, 1-2 December, 2016, from the World Academy of Science, Engineering and Technology.

2214/A-International Doctoral Research Fellowship Program-TUBITAK Visiting PhD Researcher at University of Melbourne, Centre for Actuarial Studies.March-September 2014

Awarded with a Bursary by the Section for Actuarial Studies In Non-life Insurance of International Actuarial Association (ASTIN/IAA) for the costs of accomodation, travel and the registration fees of 2017 ASTIN AFIR/ERM Colloquium, 20-24 August 2017

ADMINISTRATIVE RESPONSIBILITIES

Delegate of the Turkish Committee of ASTIN (Non-life Insurance Section of IAA), 2017-Present

Expert Witness, Compensation for Loss of Income and Earnings, 2008-Present

Member of Criterion Commission, Association for Evaluation and Accreditation of Programs in Faculties of Science, Arts, Arts and Science, Letter and History-Geography (FEDEK), March 2019-Present

Associate Coordinator of Erasmus Program, 2020-Present

Member of Actuarial Sciences Bologna Team

Academic Advisor of Undergraduate Students, 2008-Present

Member of the Executive Committee, 2nd National Insurance and Actuarial Congress, September 2015

Advertisement Committee Member of Department of Actuarial Sciences 2008-Present

Coordinator of Advertisement of Department of Actuarial Sciences, 2018 - Ongoing

COMPUTER SKILLS

MS Office Applications (advanced)
R, MATLAB, WOLFRAM MATHEMATICA (advanced)
LaTeX (advanced)
SPSS, MINITAB (good)
Arena, WinBUGS, SAS (good)

LANGUAGES

Turkish (Mother tongue),
English (Advanced),
German (Elementary)

MEMBERSHIPS

Actuarial Society of Turkey (AST)
International Actuarial Association (IAA)
Actuary Society

ACADEMIC SUPERVISORY

4 MSc students (Thesis Stage)
1 MSc students (Lecture Stage)

POSTGRADUATE THESIS (Supervised)

Kara, M. "Güvenilirlik Analizi ve Maliyete Etkisi: Elektronik Kartlar Üzerine Bir Uygulama (Reliability Analysis and Cost Effect: An Application on Electronic Cards)", Hacettepe University, 2021, MSc. Thesis

LECTURES

IAM 546 ACTUARIAL RISK THOERY (MSc)-METU (2022)
AKT 401 ACTUARIAL PRACTICE (BSc) (2018-Ongoing)
AKT 409 REINSURANCE (BSc) (2015-Ongoing)
AKT 315 NON LİFE ACTUARIAL MATHEMATICS I (BSc) (2019-Ongoing)
AKT 316 NON LIFE ACTUARIAL MATHEMATICS II (BSc)(2019-Ongoing)
AKT 701 ACTUARIAL LOSS MODELS (PhD) (2018-Ongoing)
AKT 702 NON LIFE INSURANCE (PhD) (2018-Ongoing)
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