

## Assoc. Prof. ŞULE ŞAHİN

### Personal Information

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### Education Information

Doctorate, Heriot-Watt University, Mathematical And Computer Sciences, Actuarial Mathematics, United Kingdom 2007 - 2010

Postgraduate, Middle East Technical University, Fen Edebiyat Fakültesi, Sosyoloji, Turkey 2004 - 2008

Postgraduate, Hacettepe University, Fen Fakültesi, Aktüerya Bilimleri, Turkey 2004 - 2006

Undergraduate Minor, Middle East Technical University, Fen Edebiyat Fakültesi, Sosyoloji, Turkey 2002 - 2004

Undergraduate, Middle East Technical University, Fen Edebiyat Fakültesi, İstatistik, Turkey 1999 - 2004

### Dissertations

Postgraduate, Transformation of the Turkish welfare regime: The role of the individual pension system and its effect on women's welfare, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Ortodonti A.B.D., 2008

Postgraduate, Belirlenmiş fayda emeklilik planlarından belirlenmiş katkı emeklilik planlarına geçişin modellenmesi: Türkiye uygulaması, Hacettepe Üniversitesi, Fen Fakültesi, Aktüerya Bilimleri Bölümü, 2006

### Research Areas

Statistics, Natural Sciences

### Courses

AKTÜERYA, Undergraduate, 2016 - 2017

ÖZEL KONULAR, Doctorate, 2016 - 2017

Demografi ve Yaşam Modelleri, Undergraduate, 2016 - 2017

ÖZEL KONULAR, Postgraduate, 2016 - 2017

ZAMAN SERİLERİ, Doctorate, 2016 - 2017

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

- I. **Transitory mortality jump modeling with renewal process and its impact on pricing of catastrophic bonds**  
Ozen S., Sahin S.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.376, 2020 (SCI-Expanded)
- II. **PARSIMONIOUS PARAMETERIZATION OF AGE-PERIOD-COHORT MODELS BY BAYESIAN SHRINKAGE**

- Venter G., ŞAHİN Ş.  
ASTIN BULLETIN, vol.48, no.1, pp.89-110, 2018 (SCI-Expanded)
- III. **Pricing pension buy-outs under stochastic interest and mortality rates**  
ARIK A., Yolcu-Okur Y., ŞAHİN Ş., UĞUR Ö.  
SCANDINAVIAN ACTUARIAL JOURNAL, no.3, pp.173-190, 2018 (SCI-Expanded)
- IV. **Optimal lower barrier on modified surplus process**  
BULUT KARAGEYİK B., ŞAHİN Ş.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.87, no.8, pp.1520-1540, 2017 (SCI-Expanded)
- V. **HOW A SINGLE-FACTOR CAPM WORKS IN A MULTI-CURRENCY WORLD**  
Thomson R., ŞAHİN Ş., Reddy T.  
ASTIN BULLETIN, vol.46, no.1, pp.103-139, 2016 (SCI-Expanded)
- VI. **A Minimum Pension Guarantee Application for the Individual Pension System in Turkey: A Gendered Approach**  
ŞAHİN Ş., Elveren A. Y.  
JOURNAL OF WOMEN POLITICS & POLICY, vol.35, no.3, pp.242-270, 2014 (SSCI)

### Articles Published in Other Journals

- I. **Semiparametric Regression for Dual Population Mortality**  
Venter G., Şahin Ş.  
North American Actuarial Journal, vol.26, no.3, pp.403-427, 2022 (ESCI)
- II. **Yet more on a stochastic economic model: Supplement to Part 4: A model for share earnings, dividends and prices**  
Wilkie A. D., Sahin S.  
ANNALS OF ACTUARIAL SCIENCE, vol.14, no.1, pp.138-149, 2020 (ESCI)
- III. **Yet more on a stochastic economic model: Part 5: a vector autoregressive (VAR) Model for retail prices and wages**  
Wilkie A. D., Sahin S.  
ANNALS OF ACTUARIAL SCIENCE, vol.13, no.1, pp.92-108, 2019 (ESCI)
- IV. **THE FORCE OF RUIN**  
ŞAHİN Ş., BULUT KARAGEYİK B.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.36, no.2, pp.563-575, 2018 (ESCI)
- V. **Yet more on a stochastic economic model: Part 4: a model for share earnings, dividends, and prices**  
Wilkie A. D., ŞAHİN Ş.  
ANNALS OF ACTUARIAL SCIENCE, vol.12, no.1, pp.67-105, 2018 (ESCI)
- VI. **Yet more on a stochastic economic model: Part 3A: stochastic interpolation: Brownian and Ornstein-Uhlenbeck (OU) bridges**  
Wilkie A. D., ŞAHİN Ş.  
ANNALS OF ACTUARIAL SCIENCE, vol.11, no.1, pp.74-99, 2017 (ESCI)
- VII. **Optimal Retention Level for Infinite Time Horizons under MADM**  
BULUT KARAGEYİK B., ŞAHİN Ş.  
RISKS, vol.5, no.1, 2017 (ESCI)
- VIII. **Determination of the Optimal Retention Level Based on Different Measures**  
BULUT KARAGEYİK B., ŞAHİN Ş.  
JOURNAL OF RISK AND FINANCIAL MANAGEMENT, vol.10, no.1, 2017 (ESCI)
- IX. **Yet more on a stochastic economic model: Part 3C: stochastic bridging for share yields and dividends and interest rates**  
Wilkie A. D., ŞAHİN Ş.  
ANNALS OF ACTUARIAL SCIENCE, vol.11, no.1, pp.128-163, 2017 (ESCI)

- X. **Yet more on a stochastic economic model: Part 3B: stochastic bridging for retail prices and wages**  
Wilkie A. D., ŞAHİN Ş.  
ANNALS OF ACTUARIAL SCIENCE, vol.11, no.1, pp.100-127, 2017 (ESCI)
- XI. **Yet more on a stochastic economic model: part 2: initial conditions, select periods and neutralising parameters**  
Wilkie A. D., ŞAHİN Ş.  
ANNALS OF ACTUARIAL SCIENCE, vol.10, no.1, pp.1-51, 2016 (ESCI)
- XII. **Türkiye de Buğday Bitkisel Ürün Sigortası için Aktüeryal Prim Hesabı**  
ŞAHİN Ş., KARABEY U., BULUT KARAGEYİK B., NEVRUZ E., YILDIRAK Ş. K.  
Tarım Ekonomisi Dergisi, vol.22, pp.37-47, 2016 (Peer-Reviewed Journal)
- XIII. **Pricing Turkish longevity risk**  
KARABEY U., ŞAHİN Ş., ARIK A.  
International Journal of Ecological Economics and Statistics, vol.37, no.2, pp.46-55, 2016 (ESCI)
- XIV. **A Yield-Macro Model for Actuarial Use in the United Kingdom**  
ŞAHİN Ş., Cairns A. J., Kleinow T., Wilkie A. D.  
Annals of Actuarial Science, vol.8, no.2, pp.320-350, 2014 (ESCI)
- XV. **Dynamic social security after the crisis: Towards a new welfare state?**  
Diamond P., Lodge G.  
International Social Security Review, vol.67, pp.37-59, 2014 (Scopus)
- XVI. **A Yield-Only Model for the Term Structure of Interest Rates**  
ŞAHİN Ş., Cairns A. J., Kleinow T., Wilkie A. D.  
Annals of Actuarial Science, vol.8, no.1, pp.99-130, 2013 (ESCI)
- XVII. **Assessing a minimum pension guarantee for the voluntary IPS in Turkey**  
ŞAHİN Ş., Elveren A.  
INTERNATIONAL SOCIAL SECURITY REVIEW, vol.64, no.3, pp.39-61, 2011 (ESCI)
- XVIII. **Yet More on a Stochastic Economic Model: Part 1: Updating and Refitting, 1995 to 2009"**  
ŞAHİN Ş., Wilkie A. D., Cairns A. J., Kleinow T.  
Annals of Actuarial Science, vol.5, no.1, pp.53-99, 2010 (ESCI)
- XIX. **The Individual Pension System in Turkey: A Gendered Perspective**  
ŞAHİN Ş., Elveren A. Y., Rittersberger-Tılıç H.  
Ekonomik Yaklaşım, vol.21, pp.115-142, 2010 (Scopus)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **On the Pension Buy out Pricing in Presence of Stochastic Interest and Mortality Rates**  
ARIK A., ŞAHİN Ş., YOLCU OKUR Y.  
The Joint Colloquium of the IACA, PBSS and IAAHS Section of the International Actuarial Association, 27 - 29 June 2016
- II. **Enflasyon Riskinin Anüite Fiyatlamasına Etkileri**  
KARABEY U., ŞAHİN Ş.  
2. Ulusal Sigortacılık ve Aktüerya Kongresi, Turkey, 17 - 18 September 2015
- III. **Pension Buy out Ürünlerinin Bağımlılık Varsayımı Altında Fiyatlandırılması**  
ARIK A., YOLCU OKUR Y., ŞAHİN Ş.  
2. Ulusal Sigorta ve Aktüerya Kongresi, Ankara, Turkey, 17 - 18 September 2015
- IV. **Pricing Pension Buy outs under Dependence Assumption**  
ARIK A., YOLCU OKUR Y., ŞAHİN Ş.  
Longevity 11 – The eleventh international longevity risk and capital markets solutions, Lyon, France, 7 - 09 September 2015
- V. **Quantification of Inflation Risk on the Annuities**  
KARABEY U., ŞAHİN Ş.

19th International Congress on Insurance: Mathematics and Economics, 24 - 26 June 2015

**VI. Risk measurement of the future annuity prices effects of different interest rate models**

KARABEY U., ŞAHİN Ş.

11th Applied Statistics 2014, 21 - 24 September 2014

**VII. Assesing the Effect of Interest Rate Models on the Future Annuity Prices**

KARABEY U., ŞAHİN Ş.

18th International Congress on Insurance: Mathematics and Economics, 10 - 12 July 2014

**VIII. A Comparison of the GARCH Models and Extreme Value Theory in terms of Risk Measures for Emerging Markets**

Nevruz E., Şahin Ş.

The 18th International Congress on Insurance: Mathematics and Economics, Shanghai, China, 10 - 12 July 2014, pp.141

**IX. Impact of Different Investment Strategies on Pricing of Pension Bulk Annuities**

ARIK A., ŞAHİN Ş.

The 18th International Congress on Insurance: Mathematics&Economics, Shanghai, China, 10 - 12 July 2014

**X. Selecting the Best Pricing Model to Conform to a Country s Avaliable Data**

KARABEY U., ŞAHİN Ş., ARIK A.

30th International Congress of Actuaries, 30 March - 04 April 2014

**XI. Selecting the Best Pricing Model to Conform to a Country s Available Data**

KARABEY U., ŞAHİN Ş., ARIK A.

30th International Congress of Actuaries, Washington, Kiribati, 30 March - 04 April 2014

## Supported Projects

ŞAHİN Ş., WİLKİE A. D., Project Supported by Higher Education Institutions, Hisse Senedi Getirileri, Fiyatları ve Temettü Ödemelerinin Modellenmesi, 2017 - 2017

BULUT KARAGEYİK B., ŞAHİN Ş., Project Supported by Higher Education Institutions, Farklı Ölçümler Altında Optimal Saklama Payı Seviyesinin Belirlenmesi, 2017 - 2017

ŞAHİN Ş., BULUT KARAGEYİK B., Project Supported by Higher Education Institutions, İflas Zamanı için Tehlike Fonksiyonu, 2016 - 2016

BULUT KARAGEYİK B., ŞAHİN Ş., Project Supported by Higher Education Institutions, Değiştirilmiş Risk Sürecinde Optimal Bariyer Seviyesi, 2016 - 2016

ARIK A., YOLCU OKUR Y., ŞAHİN Ş., Project Supported by Higher Education Institutions, Stokastik Faiz ve Ölümlülük Modelleri Yardımıyla Pension Buy-out Ürünlerinin Fiyatlandırılması, 2016 - 2016

ŞAHİN Ş., THOMSON R. J., REDDY T., Project Supported by Higher Education Institutions, Farklı Para Birimleri için Tek Faktörlü Varlık Değerleme Modeli, 2016 - 2016

ŞAHİN Ş., ELVEREN A. Y., Project Supported by Higher Education Institutions, Türkiye'deki Bireysel Emeklilik Sistemi için Asgari Emeklilik Geliri Garantisi Uygulaması: Toplumsal Cinsiyetçi Bakış Açısı, 2015 - 2016

ARIK A., ŞAHİN Ş., YOLCU OKUR Y., Project Supported by Higher Education Institutions, Pension Buy-out ürünlerinin Bağımlılık Varsayımı Altında Fiyatlandırılması, 2015 - 2016

YILDIRAK Ş. K., BULUT KARAGEYİK B., ERDEMİR Ö. G., ŞAHİN Ş., KARABEY U., NEVRUZ E., Project Supported by Higher Education Institutions, Tarım Sigortaları ve Tarımda Doğal Afet Yönetiminin Etkinliğinin Değerlendirilmesi, 2015 - 2016

ŞAHİN Ş., THOMSON R., Project Supported by Higher Education Institutions, Stokastik İnterpolasyon: Ekonomik Model Uygulaması, 2015 - 2015

KARABEY U., ŞAHİN Ş., Project Supported by Higher Education Institutions, Annüitelerde Enflasyon Riskinin Ölçümü, 2015 - 2015

ŞAHİN Ş., THOMSON R. J., Project Supported by Higher Education Institutions, Finansal Varlıkları Fiyatlama Modeli, 2015 - 2015

## **Metrics**

Publication: 38

Citation (WoS): 38

Citation (Scopus): 2

H-Index (WoS): 4

H-Index (Scopus): 1