Assoc. Prof. YELİZ YOLCU OKUR

Personal Information

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Education Information

Doctorate, Universitetet İ Oslo (University Of Oslo), Finansal Matematik, Norway 2006 - 2009
Postgraduate, Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, Turkey 2002 - 2005
Undergraduate Double Major, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, Turkey 1997 - 2002

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, 2015 - Continues
Assistant Professor, Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, 2011 - 2015
Assistant Professor, Cankaya University, Faculty Of Arts And Scıences, Department Of Mathematıcs And Computer, 2010 - 2011
Research Assistant, Universitetet İ Oslo (University Of Oslo), Fen Edebiyat Fakültesi, Matematik, 2006 - 2009
Research Assistant, Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, 2002 - 2006

Academic and Administrative Experience

Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, 2016 - Continues

Advising Theses

YOLCU OKUR Y., Multiscale volatility analysis via malliavin calculus, Doctorate, B.Alper(Student), 2018
YOLCU OKUR Y., KARASÖZEN B., Algorithmic trading strategies using dynamic mode decomposition: applied to Turkish stock market, Postgraduate, M.Can(Student), 2017
YOLCU OKUR Y., WEBER G. W., Stochastic optimal control theory: new applications to finance and insurance, Postgraduate, E.Akdoğan(Student), 2017
YOLCU OKUR Y., Pricing pension buy-outs, Doctorate, A.ARIK(Student), 2016
YOLCU OKUR Y., WEBER G. W., Recent developments in portfolio optimization via dynamic programming, Postgraduate, O.John(Student), 2015
YOLCU OKUR Y., Okur Y., An Analysis of momentum and mean reversion effects on equity indices, Postgraduate, A.Özbilge(Student), 2015
YOLCU OKUR Y., Computation of the greeks in black-scholes-merton and stochastic volatility models using malliavin calculus, Postgraduate, B.Yılmaz(Student), 2014

YOLCU OKUR Y., HAYFAVİ A., Backward stochastic differential equations and Feynman-Kac formula in the presence of jump processes, Postgraduate, C.İncegül(Student), 2013
YOLCU OKUR Y., HAYFAVİ A., Backward stochastic differential equations and their applications to stochastic control problems, Postgraduate, H.Sevda(Student), 2013
HAYFAVİ A., YOLCU OKUR Y., Option pricing with fractional brownian motion, Postgraduate, A.İnkaya(Student), 2011

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Optimal investment strategy and liability ratio for insurer with Levy risk process**
ÖZALP M. A., Yildirak K., YOLCU OKUR Y.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.48, no.4, pp.1232-1249, 2019 (SCI-Expanded)

Articles Published in Other Journals

I. **FORECASTING MORTALITY RATES WITH A GENERAL STOCHASTIC MORTALITY TREND MODEL**
HASGÜL E., Kestel A. S., YOLCU OKUR Y.
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.69, no.1, pp.910-928, 2020 (ESCI)
II. **Computation of the Delta of European options under stochastic volatility models**
YOLCU OKUR Y., Sayer T., YILMAZ B., Inkaya B. A.
COMPUTATIONAL MANAGEMENT SCIENCE, vol.15, no.2, pp.213-237, 2018 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **Stochastic Delay Differential Equations and TheirApplications to Finance**
ALADAĞLI E. E., VARDAR ACAR C., YOLCU OKUR Y.
IV. Kadın Matematikçiler Derneği Çalıştayı, Turkey, 28 - 29 April 2017
II. **An Alternative Stochastic Mortality Trend Model**
HASGÜL E., KESTEL A. S., YOLCU OKUR Y.
PARTY 2017, 8 - 13 January 2017
III. **Pricing Equity Options under a Double Exponential Jump Diffusion Process in the presence of Stochastic Barrier**
YOLCU OKUR Y., KOZPINAR SARI S., UĞUR Ö., EVCİN C.
Vienna Congress on Mathematical Finance - VCMF 2016, 12 - 14 September 2016
IV. **Examination and Parameter estimation of single species Population Models in presence of randomness and delay**
ÖLMEZ S. B., VARDAR ACAR C., YOLCU OKUR Y.
3rd Ankara Istanbul Workshop on Stochastic Processes, Turkey, 16 June 2016
V. **Estimation of Local Volatility Surfaces via Bayesian Approach**
YOLCU OKUR Y., Animoku A., UĞUR Ö.
Applied mathematical programming and Modelling (APMOD 2016), 8 - 10 June 2016
VI. **Computation of Malliavin Greeks in Hybrid StochasticVolatility Models**
YILMAZ B., YOLCU OKUR Y.
55th Meeting of the EWGCFM, Ankara, Turkey, 14 - 16 May 2015
VII. **Uncertainty Quantification and Implementation of Local Volatility Surfaces in Bayesian Framework**
Animoku A., UĞUR Ö., YOLCU OKUR Y.
55th Meeting of the EWGCFM, 14 - 16 May 2015
VIII. **Pricing Stochastic Barrier Options in Presence of Jumps**

KOZPINAR SARI S., YOLCU OKUR Y., TEKİN Ö., UĞUR Ö.
55th Meeting of the EWGCFM, 14 - 16 May 2015

IX. **Computation of the Delta of European Options under Stochastic Volatility Models**
YILMAZ B., YOLCU OKUR Y., İnkaya B. A.
SIAM conferance Fianancial Mathemtics and Engineering, Chicago, United States Of America, 13 - 15 November 2014

X. **COMPARISON OF DIFFERENT METHODS TO COMPUTE THE GREEKS**
YILMAZ B., İnkaya B. A., YOLCU OKUR Y.
Uluslararası 8. İstatistik Kongresi, Antalya, Turkey, 27 - 29 October 2013

XI. **Application of the Malliavin Calculus for Computation of Greeks in Black-Sholes and Stochastic Volatility Models**
YILMAZ B., İNKAYA B. A., YOLCU OKUR Y.
XXVI EURO-INFORMS 26th European Conferance on Operatioanl Research, Roma, Italy, 1 - 04 July 2013

Supported Projects

YOLCU OKUR Y., EKSI ALTAY Z., KOZPINAR S., Project Supported by Higher Education Institutions, Sürekli Zaman Kısmi Bilgi Modellerinin Parametre Tahmini ve Bu Modeller Varsayımı Altında Opsiyon Fiyatlandırılması, 2017 - Continues
YOLCU OKUR Y., KARASAN A., KOZPINAR S., Project Supported by Higher Education Institutions, İlişkili Brown Hareketi varsayımı ile Alım-Satım Fiyat Farkının (Bid-Ask Spread) Hesaplanması ve Etkililiğinin Değerlendirilmesi, 2016 - 2016
YOLCU OKUR Y., HERGÜNER E., Project Supported by Higher Education Institutions, Kesirli Black-Scholes-Merton Modeli ve Finansa Uygulamaları, 2015 - 2015
YOLCU OKUR Y., UĞUR Ö., KOZPINAR S., ANIMOKU A. A., Project Supported by Higher Education Institutions, Sıçramalı Difüzyon Süreçleri Varsayımı Altında Bariyer Opsiyonlarının Fiyatlandırılması, 2015 - 2015
UĞUR Ö., TEKİN Ö., YOLCU OKUR Y., Project Supported by Higher Education Institutions, Türev Araçların Lévy Modeli Altında Monte Carlo Benzetimi ile Fiyatlandırılması, 2015 - 2015
KESTEL A. S., BATMAZ İ., YOLCU OKUR Y., Ünlü K. D., Project Supported by Higher Education Institutions, Türkiye'de Gayrimenkul Piyasaları ve Diğer Göstergelerin Finans Sektörüne olan Etkisinin Değerlendirilmesi, 2014 - 2014
WEBER G. W., Yerlikaya Özkurt F., Özmen A., YOLCU OKUR Y., Karimov A., KUTER S., Project Supported by Higher Education Institutions, Stochastic Hybrid Systems of Financial and Economical Processess: Identificatied, Optimized and Controlled, 2013 - 2013
YOLCU OKUR Y., KESTEL S. A., Project Supported by Higher Education Institutions, Hisse Senetlerinin Fiyat Süreçlerinin Kesirli Difüzyon Süreçleri Kullanılarak Parametre Tahminleri., 2012 - 2013

Metrics

Publication: 14
Citation (WoS): 1
H-Index (WoS): 1