Assoc. Prof. AZİZE HAYFAVİ

Personal Information

Office Phone: +90 312 210 5613
Email: azizeh@metu.edu.tr
Web: https://avesis.metu.edu.tr/azizeh

Research Areas

Mathematics, Multivariate Complex Functions and Analytic Spaces, Functions of a Complex Variable, Probability Theory, Stochastic Processes, Natural Sciences

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Institute of Applied Mathematics, Financial Mathematics, 2002 - Continues
Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 1964 - 2003

Advising Theses

HAYFAVİ A., Modeling interest rates moving in a band, Doctorate, Ö.Özel(Student), 2018
HAYFAVİ A., Modeling temperature and pricing weather derivatives based on temperature, Doctorate, B.Taştan(Student), 2016
HAYFAVİ A., A Regime switching model for the temperature and pricing weather derivatives, Doctorate, A.Türkvatan(Student), 2016
HAYFAVİ A., Modeling correlation structure for collateralized debt obligations and determining the underlying credit default swap spread equations, Doctorate, D.İlalan(Student), 2015
HAYFAVİ A., Particle MCMC for a time changed Ĺevy process, Doctorate, A.Yüksel(Student), 2015
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., Stochastic modeling of electricity markets, Doctorate, İ.Talaslı(Student), 2012
HAYFAVİ A., Stochastic volatility and stochastic interest rate model with jump and its application on General Electric data, Postgraduate, B.Celep(Student), 2011
HAYFAVİ A., Continuous time mean variance optimal portfolios, Doctorate, Ö.Sezgin(Student), 2011
HAYFAVİ A., YOLCU OKUR Y., Option pricing with fractional brownian motion, Postgraduate, A.İnkaya(Student), 2011
HAYFAVİ A., EROL I., Completion, pricing and calibration in a Lévy market model, Postgraduate, B.Zeynep(Student), 2010
HAYFAVİ A., Pricing inflation indexed swaps using an extended hjm framework with jump process, Postgraduate, C.Karahan(Student), 2010
HAYFAVİ A., Dynamic complex hedging and portfolio optimization in additive markets, Postgraduate, O.Polat(Student), 2009
HAYFAVİ A., Pricing inflation-indexed swaps and swaptions using an hjm model, Postgraduate, Z.Canan(Student), 2009

HAYFAVİ A., A market model for pricing inflation indexed bonds with jumps incorporation, Postgraduate, İ.Ethem(Student), 2008

HAYFAVİ A., Completion of a levy market model and portfolio optimization, Postgraduate, A.Türkvatan(Student), 2008

HAYFAVİ A., Asset pricing models : stochastic volatility and information-based approaches, Postgraduate, N.Çalışkan(Student), 2007

HAYFAVİ A., Jump detection with power and bipower variation processes, Postgraduate, H.Özlem(Student), 2007

HAYFAVİ A., Valuation of life insurance contracts using stochastic mortality rate and risk process modeling, Postgraduate, Ş.Çetinkaya(Student), 2007

HAYFAVİ A., Static hedging strategies for barrier options and their robustness to model risk, Postgraduate, O.Kaya(Student), 2007

HAYFAVİ A., Stochastic volatility, a new approach for vasicek model with stochastic volatility, Postgraduate, S.Zeytun(Student), 2005

Published journal articles indexed by SCI, SSCI, and AHCI

I. **A regime switching model for temperature modeling and applications to weather derivatives pricing**
Turkvatan A., HAYFAVİ A., Omay T.
MATHEMATICS AND FINANCIAL ECONOMICS, vol.14, no.1, pp.1-42, 2020 (SCI-Expanded)

II. **Modeling Temperature and Pricing Weather Derivatives Based on Temperature**
Tastan B., HAYFAVİ A.
ADVANCES IN METEOROLOGY, 2017 (SCI-Expanded)

III. **Stochastic multifactor modeling of spot electricity prices**
HAYFAVİ A., Talasli I.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.259, pp.434-442, 2014 (SCI-Expanded)

IV. **PRICING AND COMPLETION IN A LEVY MARKET MODEL WITH TEUGEL MARTINGALES**
Okur Y. Y., TEMOÇİN B. Z., HAYFAVİ A.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.41, no.5, pp.767-783, 2012 (SCI-Expanded)

Metrics

Publication: 4
Citation (WoS): 21
Citation (Scopus): 17
H-Index (WoS): 3
H-Index (Scopus): 2