ATILLA AY

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EDUCATION_

THE GEORGE WASHINGTON UNIVERSITY, School of Business Ph.D., Decision Sciences

KOC UNIVERSITY, School of Engineering B.S., Industrial Engineering and Computer Engineering Washington, DC Expected May 2021

> Istanbul, Turkey May 2015

RESEARCH

Research Interest

Bayesian Analysis of Stochastic Processes, Reliability Modeling, Bayesian Deep Learning

Papers & Technical Reports

Bayesian Analysis of Doubly Stochastic Markov Processes in Reliability Atilla Ay, Joshua Landon, Refik Soyer, Suleyman Ozekici *Probability in the Engineering and Informational Sciences* (2020), Advance online publication. doi: 10.1017/s0269964820000157

Bayesian Analysis of Markov Modulated Queues with Abandonment Atilla Ay, Joshua Landon, Refik Soyer, Suleyman Ozekici Under revision to be resubmitted to *Applied Stochastic Models in Business and Industry*

Bayesian Modeling of Power Outages and Their Consequences Atilla Ay, Refik Soyer Working Paper (to be submitted to *Naval Research Logistics*)

A Latent-Factor Self-Exciting Point Process for Software Failures Atilla Ay, Joshua Landon, Fabrizio Ruggeri, Refik Soyer Working Paper (to be submitted to *Reliability Engineering & System Safety*)

No Show Predictions in Hospital Appointments: A Bayesian Deep Learning Approach Atilla Ay, Refik Soyer Summer Paper (to be submitted to *Health Care Management Science*)

CONFERENCE PRESENTATIONS

INFORMS Annual Meeting Reliability Assessment in Power Systems Using Markov Modulated Markov Models	Virtual Conference November 2020
Joint Statistical Meeting (JSM)	Virtual Conference
Modeling Power Outages via Markov Modulated Compound Poisson Processes	August 2020
Games, Decisions, Risk and Reliability (GDRR) Transportation Workshop	Durham N.C.
Use of Markov Modulated Poisson Processes for Reliability Assessment in Rail Syste	ms March 2020
Games, Decisions, Risk and Reliability (GDRR) Opening Workshop	Raleigh, N.C.
Bayesian Inference on Doubly Stochastic Markov Processes in Reliability	August 2019
International Conference on Mathematical Methods in Reliability (MMR)	Hong Kong
Bayesian Inference on Doubly Stochastic Markov Processes in Reliability	June 2019

EXPERIENCE

The George Washington University Instructor

Teaching a seven-week graduate level course for MBA students on time series forecasting using R. The focus of the course is on predictive analysis for time-series forecasting. Emphasis will be given to identifying hidden patterns and structures in the data and exploiting these for forecasting. Topics include use of smoothing methods, identification of seasonalities, trends and nonstationarity, analysis of autocorrelation and partial autocorrelations and their use in identification of Autoregressive Moving Average (ARMA) models. Applications in finance, marketing and operations such as forecasting default rates, market share prediction, call center arrival forecasting, etc. will be presented.

The George Washington University Teaching Assistant

Washington, DC September 2016 – Present

Leading weekly recitations and problem sessions, holding office hours to help students understand course materials and assignments, creating answer keys and grading tests, quizzes and assignments.

- Doctoral Level Courses: DNSC 8328 Bayesian Statistics; DNSC 8393 Applied Stochastic Models
- Graduate Level Courses: DNSC 6203 Statistics for Analytics I; DNSC 6206 Stochastic Foundation: Probability Models; DNSC 6219 Time Series Forecasting; DNSC 6251 Optimization Models for Decision Making
- Undergraduate Level Courses: DNSC 3401 Introduction to Business Analytics; DNSC 3402 Data Mining

SKILLS

Technical: R, Python, SQL, Java, C, C++, SAS, JMP **Languages:** English (Fluent), Turkish (Native)

REFERENCES

Refik Soyer Professor of Decision Sciences and Statistics George Washington University Email: <u>soyer@gwu.edu</u>

Fabrizio Ruggeri Research Director Italian National Research Council in Milano Email: <u>fabrizio@mi.imati.cnr.it</u>

Vadim Sokolov Assistant Professor of Systems Engineering and Operations Research George Mason University Email: <u>vsokolov@gmu.edu</u> Edinburgh, U.K. June 2018

Washington, DC Spring 2021