

IOANNIS OIKONOMIDIS

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Ioannis Oikonomidis

PROFILE

I am a postdoctoral researcher at the Management Science Laboratory (MSL) of the Athens University of Economics and Business (AUEB). The research subject I am working on is statistical modeling of electricity dynamic pricing. My research interests include mathematical and asymptotic statistics, generalized mixed-effects models, and state-space models.

EXPERIENCE

Postdoctoral Researcher - Athens University of Economics and Business

2025 - now

I am currently working as a researcher in the Management Science Laboratory (MSL). My research includes data analysis and model development on electricity dynamic pricing.

EDUCATION

PhD in Statistics - National and Kapodistrian University of Athens

2020 - 2025

Dissertation Title: Parameter Estimation Methods in Multivariate Distribution Families with Applications in Remote Sensing Agriculture and Biostatistics. Financially supported by the Bodossaki Foundation (2021 - 2023) and the Fanourakis Foundation (2024 - 2025).

MSc in Statistics & Op. Research - National and Kapodistrian University of Athens

2018 - 2020

GPA 9.44/10. Financially supported by the Bodossaki Foundation (2019 - 2020).

Bachelor of Mathematics - National and Kapodistrian University of Athens

2013 - 2018

GPA 8.23/10.

PUBLICATIONS

In Peer-Reviewed Journals

- Oikonomidis, Ioannis, and Samis Trevezas. "Moment-type estimators for the Dirichlet and the multivariate gamma distributions." *Journal of Multivariate Analysis* (2025): 105471.
- Oikonomidis, Ioannis, and Samis Trevezas. "Cumulative link mixed-effects models in the service of remote sensing crop progress monitoring." *Biometrics* 80.4 (2024): ujae137.

In Progress

- An analytical comparison of the moment and score-adjusted moment estimators for the beta and Dirichlet distribution families.
- A Generalized Gamma Distribution for Modelling Hematopoietic Stem Cell Divisions.
- The joker R Package: Object-Oriented Distributions and Parameter Estimation.
- Evaluating the Effect of Rehabilitation on Stroke Survivors' Quality of Life.

Presentations in Conferences

- Regression Methods Adapted to Large-Scale Prediction of Crop Development Using Remote Sensing Data. Department of Mathematics, University of Patras, 11 December 2023. **Invited Talk.**
- A Remote Sensing Application of Generalized Linear Mixed-Effects Models in Crop Phenology Prediction. IWAP, 7-10 June 2023.
- The Method of Moments vs Maximum Likelihood An overestimated difference? GSI, 25-28 May 2023.
- Modeling the Variability of an Arabidopsis Thaliana Population with the Greenlab Model. GSI, 19-22 May 2022.
- An Introduction to Statistics – A Case Study in Education. CIE, 9-10 October 2021.
- Regression-Type Approaches for Prediction of Crop Stage Percentages. GSI, 23-26 September 2021. **Awarded the Best Statistics Paper Prize for Young Statisticians.**
- A Comparison of Hidden Markov and Regression Models on Crop Stage Percentages Prediction. ASDMA, 1-4 June 2021.

TEACHING

Teaching Assistant - National and Kapodistrian University of Athens

2020 - 2025

I conducted sessions and created teaching material, including R code, exercises and assignments, for bachelor's and master's level courses on mathematical statistics, non-parametric statistics, linear models, Monte Carlo methods and statistics for stochastic processes.

Online Coding Courses - National and Kapodistrian University of Athens

2024 - now

I created an online course on R programming for the Center for Continuing Education and Lifelong Learning (CCE) of the National and Kapodistrian University of Athens. The courses are entirely asynchronous, including video lectures, exercises, and assignments.

SKILLS

Software: R · Julia · MATLAB · jamovi · SPSS · Microsoft Office · HTML & CSS · LaTeX

Driving License: Car (Category B) · Motorcycle (Category A2)

Languages: Greek (Native) · English (B2) · German (B1)

Off the Clock: First Aid Trainer & Rescuer at the Red Cross · Professional Pianist · Amateur Craftsman