

IOANNIS OIKONOMIDIS

STATISTICIAN, PHD CANDIDATE

+306989443696 goikon@math.uoa.gr users.uoa.gr/~goikon Athens, Greece Ioannis Oikonomidis

EDUCATION

PhD in Statistics

National and Kapodistrian University of Athens

2021 - now

Statistical Techniques for Crop Stage Monitoring and Prediction with Remote Sensing Data.

MSc in Statistics & Op. Research

National and Kapodistrian University of Athens

2019 - 2020

GPA 9.44/10

Generalized Linear Models · Bayesian Statistics · Time Series · Non-Parametric Statistics · Deterministic & Stochastic Models in OR

Bachelor of Mathematics

National and Kapodistrian University of Athens

2013 - 2018

GPA 8.23/10

Mathematical Statistics · Linear Models · Game Theory · Stochastic Processes

WORK EXPERIENCE

Data Analyst

Freelance

2018 - now

- Fertilizer mixing & optimal composition
 - Goal Programming - MS Excel
- FBI cargo crime rate
 - Spatial Analysis - R
- Stroke patient quality of life
 - Mixed-Effects Cum. Link Modeling - SPSS
- Sustainable development in education
 - Instrument Reliability - SPSS

AWARDS

PhD Scholarship

Fanourakis Foundation, 2024 - 2025

MSc & PhD Scholarship

Bodossaki Foundation, 2020 - 2024

Best Statistics Paper Prize for Young Statisticians

Greek Statistical Institute, 2021

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

PROFILE

I am a PhD student at the Mathematics Department of the National and Kapodistrian University of Athens, working under the supervision of Professor [Samis Trevezas](#). The research subject I am working on is statistical techniques for crop stage monitoring and prediction with remote sensing data. As my PhD studies come to an end, I would like to continue in a post-doc program in statistics and machine-learning.

RESEARCH

Publications in Peer-Reviewed Journals

- Oikonomidis, Ioannis, and Samis Trevezas. "Cumulative link mixed-effects models in the service of remote sensing crop progress monitoring." *Biometrics* 80.4 (2024): ujae137.
- Oikonomidis, Ioannis, and Samis Trevezas. "Moment-Type Estimators for the Dirichlet and the Multivariate Gamma Distributions." accepted in *Journal of Multivariate Analysis* (2025).

Publications in Progress

- A Generalized Gamma Distribution for Modelling Hematopoietic Stem Cell Divisions.
- The estim R Package: Object-Oriented Distributions and Parameter Estimation.
- Evaluating the Effect of Rehabilitation on Stroke Survivors' Quality of Life.
- The markov R Package: Markov Chain Modeling and Reliability.
- Panel Multiresponse Random Forests: An application to remote sensing crop progress and condition monitoring.
- A Comparison of Frequentist and Bayesian Inference on a Plant Growth Mixed Effects Hierarchical Model.

Presentations in Conferences

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

TEACHING

Lab Instructor & Teaching Assistant (NKUA, 2020 - now)

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 statistical methods, Bayesian statistics, and statistics for stochastic processes. Co-supervised 4 master's students.

Online Coding Courses - [Fox Bytes](#)

Created a series of online courses 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. Upon completing the course, the students are granted a certificate from the CCE. Personally undertook the task of marketing & promotion, including a YouTube channel, social media presence, and advertisement.