

Personal Information

Birth date 27/3/1990
Place of Birth Athens, Greece
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Education

Jan. 2014 – **PhD in Statistics**, *University College Dublin*, Ireland, Supervisor: Prof. Nial Friel.
Jan. 2018 *Advances in the Bayesian analysis of statistical models with intractable normalising constants*.
Oct. 2011 – **MSc in Statistics**, *Lancaster University*, UK, *GPA: 69.19/100*.
Sept. 2012 Core modules: Likelihood Inference • Generalized Linear Models • Bayesian Inference • Computationally Intensive Methods.
Optional modules: Clinical Trials • Genomics • Pharmacological Modeling • Survival and Event History Analysis • Adaptive and Bayesian Methods in Clinical Research.
Thesis title: *Blood-borne biomarkers in cancer trials: the interaction of prognostic and pharmacodynamic biomarkers*.
Oct. 2007 – **BSc in Statistics**, *Athens University of Economics and Business*, Greece, *GPA (weighted): 8.09/10*.
Jun. 2011 Top 10% grade point average of all graduates of the Department until the summer of 2011. Moreover, best GPA among the six out of the seventy nine of the cohort who were registered at the academic year 2007–2008 and completed the indicative program of study in the minimum period of 4 years. Modules in the fields of: Statistical Quality Control • Econometrics • Biostatistics and Epidemiology • Bayesian Analysis • Time Series Analysis • Multivariate Statistics • Computational Statistics (in total 33 courses).

Compulsory national service

Mar. 2018 – Airman at Hellenic Air Force (HAF).
Mar. 2019

Professional Experience

May 2021 – **Research Fellow**, *Department of Statistics*, Athens University of Economics and Business.
June 2023 Marie Skłodowska-Curie Individual Fellowship
Project title: Bayesian inference and model selection for stochastic epidemics.
Supervisors: Prof. Nikos Demiris, Prof. Ioannis Ntzoufras.
Mar. 2019 – **Statistician – Data Science Consultant**, *Accenture S.A. Greece*.
April 2021 Examples of projects involved in:

- Telecommunications – Predictive Node Failure Analytics
- Consumer Product Goods – Price and Promotion Optimization Analysis

- Jan. 2014 – **PhD Researcher in Statistics**, *School of Mathematics and Statistics*, University College Dublin, Ireland.
 Jan. 2018 Supervisor: Prof. Nial Friel.
 Industrial project: *Statistical analysis of cattle selling price at Irish livestock marts*, The Irish Farmers Journal.
- Oct. 2012 – **Medical Applied Statistician**, *Cardiovascular Epidemiology Unit, Department of Public Health and Primary Care*, University of Cambridge, UK.
 Dec. 2013 My duties have included:
- The design and statistical analysis of genetic association studies for Pfizer Pharmaceuticals.
 - The investigation of the association between Lp(a), Uric acid and Creatinine and cardiovascular disease in the EPIC-Heart cohort, part of the European Prospective Investigation into Cancer and Nutrition (EPIC).
 - The evaluation of the association of circulating plasma fatty acids with incidence CVD, exploring the effects of: (i) composite plasma FAs (SFA, ω 3-PUFA, ω 6-PUFA, MUFA, trans-FA); (ii) ω 3-PUFAs from different food groups (eg. Of plant or marine origin); (iii) SFAs from dairy products; (iv) Desaturase activity, within EPIC-Heart.
 - The application of SNP- based quality control (QC) methods on customized Metabochip (Metabo+) genotype data from the Copenhagen City Heart Study (CCHS) and the Copenhagen Ischemic Heart Disease Study (CIHDS).
- Jun. 2012 – **MSc Researcher**, *Paterson Institute for Cancer Research, The Christie NHS Foundation*, Manchester, UK.
 Sept. 2012 Dissertation project with using Phase II oncology trials with repeated blood biomarker data in order to: Inform the generation of simulated models into a 2x2 design, based on prognostic classifier and anticipated Pharmacodynamic response to a novel anti-cancer agent. • Better inform oncologists in the design and interpretation of anti-cancer trials. Presented to the CEP group, Paterson Institute for Cancer Research, The Christie NHS Foundation Trust, Manchester (Oct. 2012).

Academic training

Academy for PhD Training in Statistics, Applied Stochastic Processes and Computer Intensive Statistics, Leeds (Aug. 2014).

Academy for PhD Training in Statistics, Statistical Modeling and Statistical Asymptotics, Warwick (Apr. 2014).

Research interests

Markov chain Monte Carlo • Computational statistics • Bayesian statistics • Intractable likelihoods • Composite likelihoods • Markov random fields • Model selection: marginal likelihood estimation • Statistical network analysis • Stochastic epidemiology

Teaching

Delivering practical and tutorial sessions for the following modules (BSc, Master's and early stage PhD level) at University College Dublin:

STAT10060–Statistical modeling, Spring 2014/15.

STAT20110–Probability Theory, Fall 2014/15, Fall 2015/16, Fall 2016/17.

STAT30250–Linear models 2, Spring 2014/15, Spring 2015/16, Spring 2016/17.

STAT40590–Statistical Data Mining, Spring 2016/17.

STAT40180/STAT40620–Data Programming with R, Fall 2016/17.

Awards and Scholarships

- 2021 Marie Skłodowska-Curie Individual Fellowship - BERNADETTE: "Bayesian inference and model selection for stochastic epidemics". European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101027218.

- 2019 Seal of Excellence of the European Commission for the project proposal "Bayesian inference and model selection for stochastic epidemics" (proposal number: 838594). Host institution: Athens University of Economics and Business (Greece). Call: Horizon 2020's Marie Skłodowska-Curie Actions 2018 (H2020-MSCA-IF-2018). Evaluation: the project proposal was scored as a high-quality project proposal in a highly competitive evaluation process.
- 2016 Best poster presentation at CASI 2016: 36th Conference on Applied Statistics in Ireland, Limerick (May 2016).
- 2014 Insight Centre for Data Analytics Doctoral training Studentship.
- 2010 Awarded with honorary scholarship from The State Scholarships Foundation of Greece for the academic year 2009-2010.
- 2009 Awarded with honorary scholarship from The State Scholarships Foundation of Greece for the academic year 2008-2009.

Computer skills

- 2008 European Computer Driving License Syllabus Version: 4.0 (Nov. 2008)
- Basic C++, Apache Hive, Apache Spark, SAS, Linux, OpenBUGS, RJAGS
- Intermediate STATA, SPSS, Minitab
- Advanced R, STAN, MS Office, Git and version control, L^AT_EX, OpenOffice, Microsoft Windows

Certifications and Professional Development

- 2020 Machine Learning - Stanford University, April-May 2020.
- 2013 Computing for Data Analysis - Johns Hopkins University Bloomberg School of Public Health, Sept-Oct 2013.
- 2013 Equality & Diversity Essentials, Cambridge University, Sept. 2013.

Professional Activities

- 2023 Member of the organising committee of the workshop *Statistical modeling of epidemic outbreaks*, Athens, Greece (May 2023).
- 2016 Member of the steering committee of the 39th *Research Students' Conference in Probability and Statistics*, Dublin, Ireland (June 2016).
- 2015 Chair of the "Exponential Random Graphs" session, *XXXV Sunbelt Conference of the International Network for Social Network Analysis*, Brighton, UK (Jun. 2015).

Languages

- Greek **Native speaker**
- English **Full professional proficiency** *IELTS: Overall band score of 7.5 (2011); Certificate of Proficiency in English, ESOL, from Cambridge University (2005).*

Submitted papers

- [1] Bouranis, L., Demiris, N. Kalogeropoulos, K. and Ntzoufras, I. (2022). Bayesian analysis of diffusion-driven multi-type epidemic models with application to COVID-19. arXiv: <https://arxiv.org/abs/2211.15229>

Publications

- [9] Bouranis, L. (2023). Bernadette: Bayesian Inference and Model Selection for Stochastic Epidemics in R. *Journal of Open Source Software*, 8(89): 5612. DOI: 10.21105/joss.05612

- [8] Caimo, A., Bouranis, L., Krause, R. and Friel, N. (2022). Statistical Network Analysis with Bergm. *Journal of Statistical Software*, 104(1):1-23. DOI: 10.18637/jss.v104.i01
- [7] Bouranis, D., Gasparatos, D., Zechmann, B., Bouranis, L. and Chorianopoulou S. (2018). The effect of granular commercial fertilizers containing elemental sulfur on wheat yield under Mediterranean conditions, *Plants*, 8(1):2. DOI: 10.3390/plants8010002
- [6] Bouranis, L., Friel, N., and Maire, F. (2018). Model comparison for Gibbs random fields using noisy reversible jump Markov chain Monte Carlo. *Computational Statistics and Data Analysis*, 128:221-241. DOI: 10.1016/j.csda.2018.07.005
- [5] Bouranis, L., Friel, N., and Maire, F. (2018). Bayesian model selection for exponential random graph models via adjusted pseudolikelihoods. *Journal of Computational and Graphical Statistics*, 27(3):516-528. DOI: 10.1080/10618600.2018.1448832
- [4] Bouranis, L., Friel, N., and Maire, F. (2017). Efficient Bayesian inference for exponential random graph models by correcting the pseudo-posterior distribution. *Social Networks*, 50:98-108. DOI: 10.1016/j.socnet.2017.03.013
- [3] Bouranis D., Chorianopoulou S., Bouranis L. (2014). Modelling the trends of nutrient concentration dynamics in S-deprived young maize plants. *Journal of Plant Nutrition*, 37(13):2128-2143. DOI: 10.1080/01904167.2014.920372
- [2] Bouranis D., Chorianopoulou S., Bouranis L. (2014). A power function based approach for the assessment of the sulfate deprivation impact on nutrient allocation in young maize plants. *Journal of Plant Nutrition*, 37(5):704-722. DOI: 10.1080/01904167.2013.873455
- [1] Bouranis L., Sperrin M., Greystoke A., Dive C., Renehan AG. (2013). The interaction between prognostic and pharmacodynamic biomarkers. *Br J Cancer*, 109(7):1782-1785. DOI: 10.1038/bjc.2013.527

Scientific oral communications

Talks

- [17] HERMES Ph.D Workshop, Athens University of Economics and Business, Greece (June 2023).
- [16] BSU Seminar, MRC Biostatistics Unit University of Cambridge, UK (June 2023).
- [15] Statistical modeling of epidemic outbreaks workshop, Athens University of Economics and Business, Greece (May 2023).
- [14] Statistics Seminar, Trinity College Dublin, Dublin (March 2023).
- [13] Statistics and Actuarial Science Seminar, University College Dublin, Dublin (March 2023).
- [12] Royal Statistical Society International Conference, Aberdeen, UK (September 2022).
- [11] AUEB-NKUA-Indiana Conference in Biostatistics & Health Analytics, Aegina, Greece (July 2022).
- [10] 3rd research meeting of the School of Information Sciences and Technology, Athens University of Economics and Business, Greece (June 2022).
- [10] Statistics Seminar Series, Athens University of Economics and Business, Greece (Oct 2021).
- [9] Greek Stochastics κ' Meeting, Athens, Greece (Dec 2018).
- [8] Statistics Seminar Series, Athens University of Economics and Business, Greece (Nov 2018).
- [7] Seminar series, the Mitchell Centre for social network analysis, University of Manchester, UK (Feb 2018).
- [6] Social Simulation Conference, Dublin, Ireland (Sept 2017).
- [5] Greek Stochastics ι' Meeting, Milos, Greece (Jul 2017).
- [4] Working Group on Statistical Learning, University College Dublin, Dublin (Apr. 2017).
- [3] Working Group on Statistical Learning, University College Dublin, Dublin (Oct. 2015).

- [2] Exponential Random Graphs session, XXXV Sunbelt Conference of the International Network for Social Network Analysis, Brighton, UK (Jun. 2015).
- [1] Working Group on Statistical Learning, University College Dublin, Dublin (Feb. 2015).

Poster presentations

- [8] Greek Stochastics ν' Meeting, Naxos, Greece (July 2023).
- [7] European Researchers' Night 2022, Athens, Greece (Sept. 2022).
- [6] Greek Stochastics μ' Meeting, Corfu, Greece (Aug. 2022).
- [5] CASI 2017: 37th Conference on Applied Statistics in Ireland, Dublin (May 2017).
- [4] CASI 2016: 36th Conference on Applied Statistics in Ireland, Limerick (May 2016).
- [3] CRiSM Workshop: Estimating Constants, Warwick, UK (Apr. 2016).
- [2] Greek Stochastics ζ' Meeting, Athens, Greece (Dec. 2014).
- [1] Insight Student Conference, Dublin, Ireland (Sept. 2014).

Software

Bernadette, R package version 1.1.4. [L. Bouranis](#) [aut, cre]. Available on CRAN: <https://CRAN.R-project.org/package=Bernadette>

Bergm, R package version 5.0.4. A. Caimo [aut, cre], [L. Bouranis](#) [aut], R. Krause [aut] N. Friel [ctb]. Available on CRAN: <https://CRAN.R-project.org/package=Bergm>

Reviewing activity

PLOS ONE • Journal of Computational and Graphical Statistics • International Conference on Artificial Intelligence and Statistics (AISTATS) • IEEE Transactions on Network Science and Engineering

Memberships

American Statistical Association • Irish Statistical Association • Royal Statistical Society

References

References are available upon request.