CURRICULUM VITAE

ANDREA GABRIO

Tel ⋄ +31 0615675353 · email ⋄ a.gabrio@maastrichtuniversity.nl

Office address ⋄ DEB1 · UM - Department of Methodology and Statistics · 6229 HA Maastricht (NL)

Personal website ⋄ https://agabrioblog.onrender.com/ · GitHub page ⋄ https://github.com/AnGabrio

HIGHER EDUCATION

PhD Statistics   *2015 - 2019*
Department of Statistical Science, University College London, London (UK)
Project title: "Full Bayesian Models to Handle Missing Data in Health Economic Evaluations"
Status: awarded
Relevant Subjects: Statistics, Health Economics, Missing Data

MSc Statistics and Econometrics   *2014 - 2015*
Department of Mathematical Sciences, University of Essex, Colchester (UK)
Dissertation title: "Forecasting the Equity Premium"
Final grade: Distinction
Relevant Subjects: Statistics, Mathematics, Econometrics

MSc Economics and Finance   *2012 - 2014*
Department of Economics, University of Pavia, Pavia (Italy)
Dissertation title: "Dirichlet Process Mixture Models for Statistical Inference with Binary Data"
Final grade: 110/110 cum laude (equivalent to First-class honours)
Relevant Subjects: Economics, Statistics, Econometrics

BS Economics   *2009 - 2012*
Department of Economics, University of Pavia, Pavia (Italy)
Dissertation title: "The Market of the Pollution Rights in Europe after the Kyoto Protocol "
Final grade: 108/110 (equivalent to First-class honours)
Relevant Subjects: Economics

POST-GRADUATE TRAINING

Short Course   *2016*
The Academy for PhD Training in Statistics, University of Nottingham, Nottingham (UK)
Course title: "Statistical Modelling and Statistical Asymptotics "

Short Course   *2016*
Bayes-Pharma 2016, Katholieke Universiteit Leuven, Leuven (BE)
Course title: "Bayesian methods for longitudinal data "

Short Course   *2015*
MRC Biostatistics Unit, University of Cambridge, Cambridge (UK)
Course title: "Bayesian Methods in Health Economics"

Short Course   *2015*
MRC Biostatistics Unit, University of Cambridge, Cambridge (UK)
Course title: "Practical use of multiple imputation to handle missing data in STATA"

RESEARCH AND WORK EXPERIENCE

Assistant Professor in Statistics 2020
Department of Methodology and Statistics, Faculty of Health Medicine and Life Sciences, Maastricht University, Maastricht (NL)

Tasks: Methodological Research in the area of Statistics applied to economic evaluations

Development and application of statistical methods for handling missing data with focus on research areas such as Bayesian analysis, longitudinal analysis, multilevel analysis and trial-based cost-effectiveness analysis.

Research Fellow in Statistics and Health Economics 2019
Department of Statistical Science & Department of Primary Care and Population Health, University College London, London (UK)

Tasks: Cost-Effectiveness Analysis Alongside Clinical Trials, Trial and Health Economic Analysis Plans, Methodological Research in the area of Health Economics and Statistics

Involvement in the design and statistical and health economic analysis of clinical trials at UCL Priment clinical trials unit in different disease/intervention areas, which include: behavioural interventions (e.g. sexual and mental health), schizophrenia and psychosis, ophthalmology, dementia and Parkinson.

External Collaborator for Consultancy and Pharmaceutical Companies on Health Economics and Statistics Related Projects 2019
Department of Statistical Science, University College London, London (UK)

Cost-effectiveness analysis and costing of healthcare resource utilization for HTA submissions and payer engagement (collaboration with ICON plc and GSK)

Feasibility Network Meta-Analysis and NMA in acute myeloid leukemia (collaboration with IQVIA)

Member of the "Health Economics Analysis and Research Methods Team" since 2019
Institute of Clinical Trials and Methodology, University College London, London (UK)

Webpage: `https://www.ucl.ac.uk/clinical-trials-and-methodology/`

Research Visitor 2018
Department of Statistics, University of Florida, Gainesville (FL)

Project title: "Modelling Missing Data in Longitudinal Studies for Health Economic Evaluations"
Collaborators: Prof. Michael J. Daniels (UF)

Peer-Reviewer since 2017

Academic Journals: *Health Economics, PharmacoEconomics, BMJ, Biometrical, Statistics in Medicine, IMA Journal of Management Mathematics, BMC Health Services Research, Health Services and Outcomes Research Methodology, Global Ecology and Biogeography*

Member of the "Statistics for Health Economic Evaluation Research Group" since 2015
Department of Statistical Science, University College London, London (UK)

Webpage: `http://www.ucl.ac.uk/statistics/research/statistics-health-economics`

Junior Analyst 2016 - 2017
MAPI Group, London (UK)

Tasks: Statistical Modelling, Health Economic Evaluation, Literature Review, Articles Screening, Meta-Analysis, Survival Analysis

TEACHING

Teacher 2020-on going
Department of Methodology and Statistics, Maastricht University, Maastricht (NL)

Postgraduate Courses: Advanced statistical analysis techniques (EPI4923)

Tutor/Demonstrator 2018-2019
Department of Statistical Science, University College London, London (UK)

Undergraduate Courses: Introductory Statistical Methods and Computing (STAT0021), Introduction to Practical Statistics (STAT0004)

Co-Supervisor for PhD students 2019-on going
University College London, London (UK)

- *Statistical Science Department.* PhD project: "Bayesian methods to handle item-level missingness in the analysis of patient questionnaires from clinical trials"

Co-Supervisor for MSc students 2018-2019
University College London, London (UK)

- *Institute for Global Health.* Dissertation title: "Comparative analysis between multiple imputation and a fully Bayesian approach in cost-effectiveness analysis"

- *Statistical Science Department.* Dissertation title: "Dealing with Missing Data in Health Economic Evaluation"

Marker 2018-2019
Institute for Global Health, University College London, London (UK)

- Course: Final Portfolios for the course Key Principles of Health Economics (KPHE)

- Course: Final Portfolios for the course Economic Evaluation in Health Care (EEHC)

- Oral presentation of dissertation for the MSc in Health Economics and Decision Science (HEDS)

Workshops
University College London, London (UK)

- Understanding Health Economics in Clinical Trials - third edition. Institute of Clinical Trials and Methodology, University College London, London (UK), 2020

- Understanding Health Economics in Clinical Trials - second edition. Institute of Clinical Trials and Methodology, University College London, London (UK), 2020

- Understanding Health Economics in Clinical Trials. Institute of Clinical Trials and Methodology, University College London, London (UK), 2019

- Methods for Addressing Missing Data in Health Economic Evaluation. Pre-Conference Workshop, 39th Spanish Health Economics Association Conference, Universidad de Castilla-La Mancha, Albacete, (ESP), 2019

Support Worker 2015 - 2016
Institute of Education, Student Disability Services, University College London, London (UK)

Tutor 2012 - 2014
Department of Economics, University of Pavia, Pavia (Italy)

Undergraduate Courses: Microeconomics, Macroeconomics and Applied Statistics
Postgraduate Courses: Financial Econometrics

PUBLICATIONS

Peer-reviewed publications

– Gabrio A (2020). "A Bayesian framework for patient-level partitioned survival cost-utility analysis" – arXiv version – `https://arxiv.org/abs/1805.07149`

– Gabrio A, Hunter R, Mason AJ, Baio G (2020). "Joint longitudinal models for dealing with missing at random data in trial-based economic evaluations" – arXiv version – `https://arxiv.org/abs/1805.07149`

– Clarke C, Brawley C, Ingleby F, Gabrio A, Dearnaley D, Matheson D, Attard G, Rush H, Jones R, Clarke N, Parmar M, Sydes M, Hunter R, James N (2020)."Addition of abiraterone to first-line long-term hormone therapy in prostate cancer (STAMPEDE): Model to estimate long-term survival, quality-adjusted survival, and cost-effectiveness", *Journal of Clinical Oncology*, 38(2),204 – `https://ascopubs.org/doi/abs/10.1200/JCO.2020.38.6_suppl.204`

– Gabrio A (2020)."Bayesian Hierarchical Models for the Prediction of Volleyball Results"', *Journal of Applied Statistics*, 1-21 – `https://www.tandfonline.com/doi/full/10.1080/02664763.2020.1723506`

– Gabrio A, Daniels MJ, Baio G (2020)."A Bayesian Parametric Approach to Handle Missing Longitudinal Outcome Data in Trial-Based Health Economic Evaluations", *Journal of the Royal Statistical Society: Series A*, 183(2), 607-1629 – `https://rss.onlinelibrary.wiley.com/doi/full/10.1111/rssa.12522`

– Gabrio A, Manca A, Baio G (2019)."A Bayesian Statistical Economic Evaluation Methods for Health Technology Assessment", in Jones A, et al., editor(s), *Oxford Encyclopedia of Health Economics*, Oxford University Press, Oxford, UK – `https://oxfordre.com/economics/view/10.1093/acrefore/9780190625979.001.0001/acrefore-9780190625979-e-451`

– Gabrio A, Mason AJ, Baio G (2018)."A Full Bayesian Model to Handle Structural Ones and Missingness in Economic Evaluations from Individual Level Data", *Statistics in Medicine*, 38(8), 1399-1420 – `https://onlinelibrary.wiley.com/doi/full/10.1002/sim.8045`

– Gabrio A, Mason AJ, Baio G (2017). "Handling Missing Data in Within-Trial Cost-Effectiveness Analysis: A Review with Future Recommendations", *PharmacoEconomics - Open*, 1(2) , 79-97 – `https://link.springer.com/article/10.1007/s41669-017-0015-6`

Non-Peer-reviewed publications

– `R` package – "missingHE: A `R` package to handle missing data in health economic evaluations". Available both on GitHub (`https://github.com/AnGabrio`) and CRAN (`https://cran.r-project.org/web/packages/missingHE/`)

Conference Abstracts

– Gabrio A, Leurent, B (2021)."Linear mixed models to handle missing at random data in trial-based economic evaluations", *HESG Conference 2021* – `https://hesg.org.uk/wp-content/uploads/2020/11/HESG-LSHTM-Abstract-Booklet-NS-10.11.20.pdf`

– Gabrio A, Hunter R, Mason AJ, Baio G (2020)."Choosing the missing data method in trial-based economic evaluations. How to make the right choice?", *EUHEA Conference 2020* – `https://www.euhea.eu/abstracts_conference_2020.html`

– Gabrio A, Daniels MJ, Baio G (2019)."PNS76 A Bayesian Parametric Approach to Handle Missing Longitudinal Outcome Data in Trial-Based Health Economic Evaluations", *Value in Health*, 22(3), S775 – `https://www.valueinhealthjournal.com/article/S1098-3015(19)34356-6/abstract`

PRESENTATIONS AND POSTERS

Statistics, Health Economics and Methodology Seminar   2020
PRIMENT Clinical Trials Unit, University College London, London (UK)

· Presentation title: "Choosing the Missing Data Method in Trial-Based Economic Evaluations. How to Make the Right Choice?"

Methodologists' meeting   2019
Department of Primary Care and Population Health, University College London, London (UK)

· Presentation title: "MissingHE: An R package to deal with missing data in trial based health economic evaluations"

International Society for Pharmacoeconomics and Outcomes Research Europe   2019
Bella Center, Copenhagen (DK)

· Poster title: "A Bayesian Parametric Approach to Handle Missing Longitudinal Outcome Data in Trial-Based Health Economic Evaluations"

5th International Clinical Trials Methodology Conference   2019
Hilton Brighton Metropole, Brighton (UK)

· Presentation title: "A Bayesian Parametric Approach to Handle Missing Longitudinal Outcome Data in Trial-Based Health Economic Evaluations"

Health Economists' Study Group Summer Meeting   2019
University of East Anglia, Norwich (UK)

· Presentation title: "Adjusting for Partially-Observed Baseline Utilities and Costs in Trial-Based Cost-Effectiveness Analysis: A Comparison of Different Methods and Their Performance"

Statistics, Health Economics and Methodology Seminar   2018
PRIMENT Clinical Trials Unit, University College London, London (UK)

· Presentation title: "A Bayesian parametric approach to handle nonignorable missingness in health economic evaluations"

Centre for Statistical Methodology Early Career Researcher Showcase   2018
London School of Hygiene and Tropical Medicine, London (UK)

· Presentation title: "A full Bayesian framework to handle data complexities and missingness in economic evaluations"

Health Economics Symposium   2018
Department of Statistical Science, University College London, London (UK)

· Poster title: "A full Bayesian approach to handle structural ones and missingness in economic evaluations"

Health Economics and Decision Science seminar 2017
Institute of Global Health, University College London, London (UK)

· Presentation title: "A full Bayesian approach to handle missingness in economic evaluations"

The Third European Health Economics Association PhD student-supervisor and early career researcher conference 2016
Universitat Internacional de Catalunya, Barcelona (ES)

· Poster title: "Handling Missing Data in Within-Trial Cost-Effectiveness Analysis: A Review with Future Recommendations"

Statistical Science seminar 2016
Department of Statistical Science, University College London, London (UK)

· Presentation title: "Full Bayesian models to handle missing values in cost-effectiveness analysis from individual level data"

AWARDS

Costas Goutis Prize 2017
University College London, London (UK)

Prize for: High quality research work leading to the transfer of registration from MPhil to PhD

Research grant 2016-2017
The Foundation Blanceflor Boncompagni - Ludovisi née Bildt, Stockholm (SE)

Grant/individual scholarship for promoting high quality PhD scientific research and education

SKILLS

Software	`R` (expert), `OpenBUGS`/`JAGS`/`Stan` (expert), `VBA - Microsoft Excel` (advanced), `Matlab` (advanced), `STATA` (good), `SPSS` (basic)
Languages	Italian (native), English (fluent), French (good)
Areas of expertise	Missing Data Analysis, Health Economic Evaluations, Longitudinal Models Design and Analysis of Clinical Trials Data, Decision Models, Bayesian Statistics, Statistical Computing, Sensitivity Analysis, Analysis of Health and Biomedical Data Statistical communication and graphics