Alexis **Bellot**

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Education

University of Cambridge
Cambridge, United Kingdom

PHD APPLIED MATHEMATICS - MACHINE LEARNING
Expected beginning 2021

- Thesis Title: Causality and Hypothesis Testing with Heterogeneous Data.
- Affiliated with, and funded by the Alan Turing Institute.
- Supervisor: Prof. Mihaela van der Schaar.

University of Oxford
Oxford, United Kingdom

MSc APPLIED STATISTICS
Sept. 2017

- MSc Grade: Distinction.
- Courses in Graphical Models, Applied Statistics, Foundations of Statistical Inference,
  Statistical Programming, Statistical Machine Learning, Bayes Methods, Computational Statistics.

Imperial College London
London, United Kingdom

BSc MATHEMATICS
Jun. 2016

- BSc Grade: First Class Honours.
- Courses in all areas of Mathematics with a specialization in Statistics.

Publications

Causality

- A. Bellot, M. van der Schaar, "*Searching for Structure in Non-linear Dynamical Systems*", In preparation.
- A. Bellot, M. van der Schaar, "*Scoring DAGs with Unobserved Confounding*", In preparation.
- A. Bellot, M. van der Schaar, "*Accounting for Unobserved Confounding in Domain Generalization*", Preprint available.
- Y. Zhang, A. Bellot, M. van der Schaar, "*Learning Overlapping Representations for the Estimation of Individualized Treatment Effects*", AISTATS, 2020.

Hypothesis testing

- A. Bellot, M. van der Schaar, "*Kernel Hypothesis Testing with Set-valued Data*", Preprint available.
- A. Bellot, M. van der Schaar, "*A Kernel Two Sample Test for Unbiased Decisions*", In preparation.
- A. Bellot, M. van der Schaar, "*Conditional Independence Testing using Generative Adversarial Networks*", NeurIPS, 2019.

Risk prediction with medical data

- Thomas E Cowling, Alexis Bellot, and others. "*One-year mortality of colorectal cancer patients: development and validation of a prediction model using linked national electronic data*", British Journal of Cancer, 2020.
- Yue Ruan, Alexis Bellot, and others. "*Predicting the Risk of Inpatient Hypoglycemia With Machine Learning Using Electronic Health Records*", Diabetes Care, 2020.
- Z. Qian, A. Alaa, A. Bellot, M. van der Schaar, "*Learning Dynamic and Personalized Comorbidity Networks from Event Data using Deep Diffusion Processes*", AISTATS, 2020.
- A. Bellot, M. van der Schaar, "*A Bayesian Approach to Modelling Longitudinal data*", ACM Transactions on Computing for Healthcare and Health workshop at NeurIPS, 2019.
- A. Bellot, M. van der Schaar, "*Boosting Transfer Learning with Survival Data from Heterogenous Domains*", AISTATS, 2019.
- A. Bellot, M. van der Schaar, "*Multitask Boosting for Survival Analysis with Competing Risks*", NeurIPS, 2018.
- A. Bellot, M. van der Schaar, "*Boosted Trees for Risk Prognosis*", Machine Learning for Healthcare Conference (MLHC), 2018.
- A. Bellot, M. van der Schaar, "*A Hierarchical Bayesian Model for Personalized Survival Predictions*", IEEE J. BHI, 2018.
- A. Bellot, M. van der Schaar, "*Tree-based Bayesian Mixture Model for Competing Risks*", AISTATS, 2018.

Service and Awards

2020	**Reviewer**	NeurIPS, ICLR, AISTATS, ACM Transactions on Intelligent Systems and Technology.
2019	**Award**	Best Abstract at the AIMED conference in London.
2019	**Award**	Winner of the G-Research PhD Competition, prize of £10000.