Mélodie Monod

CONTACT DETAILS Professional email: melodie.monod18@ic.ac.uk Personal email: monod.melodie@gmail.com

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EDUCATION

Imperial College London, London, United Kingdom

2019-2023

PhD in Statistics

Part of the EPSRC Centre for Doctoral Training in Modern Statistics and Statistical

Machine Learning at Imperial and Oxford

Supervisor: Dr. Oliver Ratmann

Relevant Modules: Bayesian Modelling and Computation, Statistical Machine Learn-

ing, Modern Statistical Theory

Imperial College London, London, United Kingdom

2018-2019

Master of Science in Statistics Final Grade: Distinction

MSc thesis: "Bayesian reconstruction of epidemic transmission chains from viral

deep-sequence data"

Relevant Modules: Bayesian Methods, Applied Statistics, Biomedical Statistics, Statistical Genetics and Bioinformatics, Computational Statistics, Advanced Simulation

Methods, Machine Learning

University of Geneva, Geneva, Switzerland

2015-2018

Bachelor of Science in Economics and Management

Final Grade: 5.71/6, Class Rank: First out of > 100 students

Relevant Modules: Algebra, Analysis, Probability, Statistics, Numerical Methods,

Theoretical and Applied Econometrics

EXPERIENCE

University of Geneva, Geneva, Switzerland

07/2017 - 09/2017

 $Summer\ Research\ Assistant$

Centre for Interprofessionnal Simulation (CiS)

Supervisor: Dr. Bernard Cerutti

We investigated the impact of interprofessional teaching on medical students' perfor-

mance. All analyses were conducted on R.

TEACHING EXPERIENCE Imperial College London, London, United Kingdom

10/2020 - 12/2020

Graduate Research Assistant in Introduction to Computing

This module provides an introduction to computation and programming in Python.

PROGRAMMING SKILLS

Languages:

- R
- Stan
- LATEX

Open source code:

- Code for analysis of [1] and [2] is available at https://github.com/ ImperialCollegeLondon/covid19model
- Code for data scraping and processing of [2] is available at https://github.com/ImperialCollegeLondon/US-covid19-agespecific-mortality-data

AWARDS

EPSRC CDT in Modern Statistics and Statistical Machine Learning Scholarship \$2018\$

Imperial College London, London, United-Kingdom

The Department of Mathematics Scholarship for the MSc Statistics 2018 Imperial College London, London, United-Kingdom

Awarded for academic excellence and ability to continue into a postgraduate research degree.

Highest overall grade average of the Bachelor's Degree in Economics and Management - Major Economics 2018

University of Geneva, Geneva, Switzerland

PUBLICATIONS

- [1] Seth Flaxman et al. "Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe". In: *Nature* 584.7820 (2020), pp. 257–261. DOI: 10.1038/s41586-020-2405-7. URL: https://doi.org/10.1038/s41586-020-2405-7.
- [2] Mélodie Monod et al. "Age groups that sustain resurging COVID-19 epidemics in the United States". In: medRxiv (2020). DOI: 10.1101/2020.09.18.20197376. URL: https://www.medrxiv.org/content/early/2020/09/22/2020.09.18.20197376.

TALKS

- StanCon 2020, August 13 2020.
- COVID-19 Dynamics & Evolution Webinar Series, University of California San Diego, October 19 2020.
- Banff International Research Station for Mathematical Innovation and Discovery, November 10 2020.

LANGUAGES

French: Native Speaker

English: Fluent

INTERESTS

- Sport
 - Running, 10km in 2017, half-marathon (21.097km) in 2018 at the "Harmony Geneva Marathon for Unicef"
 - Swimming, 1250m open water swim in 2017 at "La Fluctuat Paris"
 - Horse riding, "Galop 7" (second degree), won national competitions from 2010 to 2015
 - $-\,$ Badminton, team winner of Paris and 4th of the French region Ile-de-France in $2011\,$
- Music: Played the guitar for 6 years