# Iqraa Meah

PhD candidate in Statistics.

### Education

# Since January **PhD candidate in Statistics**, Sorbonne University, Paris, France - Hochschule Darmstadt, 2021 Darmstadt, Germany.

Supervided by Etienne Roquain (LPSM, Sorbonne University) and Sebastian Döhler(Hochschule Darmstadt).

Title: On improving multiple testing for structured data.

**Objective**: My thesis research aims to propose new approaches ensuring control of the false discovery proportion either in probability (uniform tail bounds) or in expectation (false discovery rate) while taking into account particular structures that are inherent to modern data sets such as online data, discrete data or pre-ordered data.

2019–2020 Master 2 in Statistics. Sorbonne University, Paris, France

## Work experiences

#### May 2020- Research Internship on privacy in Deep Learning, Owkin, Paris, France.

October Supervised by Mathieu Andreux and Eric Tramel.

2020 **Master thesis title**: Privacy of gradients in deep learning: an inverse problem perspective. **Objective**: Owkin is a biotech company that uses AI to leverage biomedical data to find the right treatment for every patient. The goal of the internship was to investigate privacy attacks aiming at reconstructing data samples from gradients during the training of deep learning algorithms in a federated setting.

# Publications

#### Preprints (authorship in alphabetical order besides for the second item)

- 2023 A unified class of null proportion estimators with plug-in FDR control S. Döhler, I. M. arXiv
- 2023 False discovery proportion envelopes with consistency, I. M, G. Blanchard, E. Roquain. arXiv
- 2021 **Online multiple testing with super-uniformity reward,** S. Döhler, I. M., E. Roquain. arXiv (*In review for EJS*)

# Communications

- July 2023 Journées des Statistiques, Brussels, Belgium
- May 2023 Workshop on Statistical Data Science, Hochschule Darmstadt, Darmstadt, Germany
- September Efficient statistical testing for high-dimensional model (FAST-BIG) workshop, Inria, Paris 2022
- August 2022 International Conference on Multiple Comparison Procedures, Bremem, Germany
- June 2022 Journées des Statistiques, Lyon, France
- April 2022 Rencontres Jeunes Statisticiens, Porquerolles, France
- March 2022 Workshop on post-selection inference for genomic and neuroimaging data, Institut Mathématique de Toulouse, Toulouse, France.

- February **Young Statisticians and Probabilists day**, Institut Henri Poincaré, Paris, France. 2022
- November **Groupe de travail des thésards (PhD students seminar)**, Sorbonne University, Paris, France. 2021

# Scientific activities

- Since June Member of the The Young Statisticians Group in the French Statistical Society (SFDS) 2022 • Organizer of the 11th Young Statisticians and Probabilists day at Institut Henri Poincaré, Paris.
  - 2021 and **Reviewer:** Biometrical Journal 2022

# Teaching activities

- Sept Dec Statistics and linear models in R (practical sessions) for Master 1 ISUP 2022 • Data science in Python (practical sessions) for L1
- Sept Dec Linear models exercice class for Master 1 ISUP 2021 • Data science in Python (practical sessions) for L1

# Computer skills

Languages Python – R (see my GitHub to have a glance at some of my code) Tools Git, Anaconda, Latex

Language skills

French Mother tongue

English Fluent