# Adeline Fermanian

## PhD student in statistics

### Education

- November **PhD** in statistics, *LPSM Sorbonne Université*, Paris, France.
- 2018-Present Funded by DIM MathInnov. Research topic: Signature, rough paths and statistical learning. Supervisors: Gérard Biau and Benoît Cadre.
  - 2017-2018 Master of science in statistics, ETH, Zürich, Switzerland.
    - Key subjects: mathematical statistics, computational statistics, stochastic calculus.
  - 2014-2016 Bachelor in engineering, CentraleSupelec, Châtenay-Malabry, France.
  - 2012-2014 Intensive 2-year university level preparation in maths and physics, Lycée Henri IV, Paris, France.
  - 2009-2012 Scientific Baccalaureate specialising in mathematics, Lycée Condorcet, Paris, France.

## Experience

### Vocational

- June 2018 Master thesis, LPSM Sorbonne Université, Paris, France.
- October 2018 Wrote a master thesis on the the signature method in machine learning. Reviewed existing literature on dimension reduction techniques for data streams. Compared the performance of the signature transformation on several datasets.
- February 2017 Graduate researcher, Inria Wolfgang Pauli Institute, Vienna, Austria.
  - July 2017 Studied deterministic and stochastic models of division of bacteria. Developped a web application (Python) for biologists to test different models on real-world data. Supervisor: Marie Doumic.
  - August 2016 Data Scientist, Multiposting group SAP, Paris, France.
  - January 2017 Developed machine learning algorithms for salary prediction using a database of millions of job ads. Studied natural language processing for job ads classification and normalization. Coded in Python.

#### **Projects**

- February-June Statistical consulting project, Seminar for Statistics ETH, Zürich, Switzerland.
  - 2018 3-people group project in collaboration with Zürich children's hospital. Analyzed a dataset to predict secondary displacement of phalangeal fractures.
  - 2016 Project "Neurofeedback with Arduino Microcontroller", LISA Ecole Centrale Paris.

Investigated the use of cerebral waves detected with a MindWave Mobile Headset: controlling a robot and analysing quality of sleep. The project was awarded the innovation prize from the "Coordination jeunes promotions" association.

2014-2015 Project "Analysis of the walk from a big database", CMLA - ENS Paris Saclay, Cachan, France.

Developed statistical tools for diagnosis of walk pathologies.

#### Miscellaneous

July-August 2015 Assistant head of a food distribution center, Août Secours Alimentaire, Paris, France.

Supervised a food distribution center for people living in precarious conditions. Managed a team of 20 volunteers, including disabled workers.

2015 President, Artistic student association at Centrale Paris, Chatenay-Malabry, France.

Organized an artistic festival with a budget of  $15000 \in$ . Managed a 30-persons team. Initiated the development of an innovative and electronic ticketing for cultural events in Paris.

# Computer skills

- Software Latex, Word, Powerpoint, Excel
- Languages Python (Pandas, scikit-learn and django libraries), R, Apache Solr, MySQL, Matlab.

# Language skills

- French Mother tongue English Fluent (C1, TOEFL IBT : 106/120)
- German Intermediate (B1-B2) Spanish Elementary (A2)

### Personal interests

Music Municipal Conservatory of Music in Paris from 2002 to 2012 : studied piano, solfeggio, musical writing and choral singing. Performed many concerts.