

Imke Mayer

✉ imke.mayer@inria.fr
🌐 www.imkemayer.com
🐦 [imkemay](https://twitter.com/imkemay)
🌐 [imkemayer](https://www.linkedin.com/in/imkemayer)



Research experience and professional activities

- 2020 **Visiting student researcher (planned: 4 months)**, *Biomedical Informatics Research Center, Stanford University*, Stanford, CA, USA.
Causal inference, policy learning. Begun but interrupted and postponed due to COVID-19. Advisors: Stefan Wager & Nigam Shah.
- 2019–Present **Teaching assistant**, *École Polytechnique*, Palaiseau, France.
- 2018–Present **PhD candidate**, *École des Hautes Études en Sciences Sociales & École Polytechnique*, Paris & Palaiseau, France.
Analysis of heterogeneous data with missing values – Application to critical care management. Statistics, machine learning, personalized medicine. Advisors: Jean-Pierre Nadal & Julie Josse.
- 2018 **Visiting student researcher (5 months)**, *Biomedical Engineering Department, Johns Hopkins University*, Baltimore, MD, USA.
Theoretical guarantees for sparse dictionary learning (Master's thesis). Advisor: René Vidal.
- 2017 **Research intern (2 months)**, *Sorbonne Université*, Paris, France.
False discovery rate control in linear models. Advisors: Claire Boyer & Maxime Sangnier.
- 2016 **Working student (7 months)**, *Foodora GmbH*, Berlin, Germany.
Data analysis and forecasting for logistics operations and business intelligence.
- 2013 **Intern (1 month)**, *DRK Klinikum Westend*, Berlin, Deutschland.
Nursing assistant in the surgical department.

Teaching

- Winter 2021 **Instructor**, *AI4Health Winter School*, Paris, France.
Causal inference for observational clinical data.
- Spring 2020 **Teaching assistant**, *École Polytechnique - IPP*, Palaiseau, France.
Causality and missing values (Master level).
- Summer 2019 **Internship advisor**, *École Polytechnique - IPP*, Palaiseau, France.
Master 1 internship of Teresa Alves de Sousa on matching methods to assess the impact of tranexamic acid on survival for major trauma patients with head injury.
- Spring, Fall 2019 **Teaching assistant**, *École Polytechnique - HEC*, Palaiseau, France.
Regression, Unsupervised Learning and Data Analysis, Data for Management (Master level).

Education and scholarships

- 2020–Present **Google PhD Fellowship**, *Machine Learning*.
- 2020 **Fondation Sciences Mathématiques de Paris (FSMP) travel scholarship for pre-doctoral research visit**, *Stanford University*, Stanford, CA, USA.
- 2017–2018 **Master 2 Mathematics and applications (Mathématiques, Vision, Apprentissage), highest honors**, *ENS Paris-Saclay*, Cachan, France.
- 2016–2017 **Master 1 Mathematics and applications, highest honors**, *Sorbonne Université*, Paris, France.

- 2015 **FSMP travel scholarship for applied mathematics undergraduate summer school**, *Brown University*, Providence, RI, USA.
- 2013–2016 **Bachelor double degree mathematics and computer science, highest honors**, *Sorbonne Université*, Paris, France.
- 2013–2018 **Excellence Major honor scholarship**, *Agence pour l'Enseignement Français à l'Étranger (AEFE)*, France.
- 2013 **French Baccalauréat (scientific stream) and German Abitur, highest honors**, *Lycée français*, Berlin, Germany.
- 2012 **German Student-Academy scholarship (course in neurolinguistics and cognitive science)**, *Stiftung Bildung & Begabung*, Rostock, Germany.

Publications

- 2020 B. Colnet, **I. Mayer**, G. Chen, A. Dieng, R. Li, G. Varoquaux, J.-P. Vert, J. Josse, S. Yang. **Causal inference methods for combining randomized trials and observational studies: a review**, *eingereicht*, <https://arxiv.org/pdf/2011.08047.pdf>.
- 2020 E. Sbidian, J. Josse, G. Lemaitre, **I. Mayer**, M. Bernaux, A. Gramfort, N. Lapidus, N. Paris, A. Neuraz, I. L., N. Garcelon, B. Rance, O. Grisel, T. Moreau, A. Bellamine, P. Wolkenstein, G. Varoquaux, E. Caumes, M. Lavielle, A. Mekontso Dessap, E. Audureau **Hydroxy-chloroquine with or without azithromycin and in-hospital mortality or discharge in patients hospitalized for COVID-19 infection: a cohort study of 4,642 in-patients in France**, *eingereicht*, <https://www.medrxiv.org/content/medrxiv/early/2020/06/19/2020.06.16.20132597.full.pdf>.
- 2020 **I. Mayer**, E. Sverdrup, T. Gauss, J.-D. Moyer, S. Wager, and J. Josse. **Doubly robust treatment effect estimation with missing attributes**, *Annals of Applied Statistics*, <https://projecteuclid.org/euclid.aoas/1600454872>.
- 2020 **I. Mayer**, J. Josse, F. Raimundo and J.-P. Vert. **MissDeepCausal: causal inference from incomplete confounders using deep latent variable models**, *submitted*.
- 2019 **I. Mayer**, J. Josse, N. Vialaneix, N. Tierney. **R-miss-tastic: a unified platform for missing values methods and workflows**, *submitted*, <https://arxiv.org/abs/1908.04822>.

Oral and poster communications

- Aug. 2021 **Joint Statistical Meetings (invited talk)**, *Topic Contribution Session*, Seattle, WA, USA.
- Jan. 2021 **Séminaire Systèmes complexes (invited talk)**, *EHESS*, Paris, France.
- Sep. 2020 **European Network for Business and Industrial Statistics (invited talk, cancelled due to COVID-19)**, *Technical University of València*, València, Spain.
- May 2020 **American Causal Inference Conference (talk, postponed to 2021 due to COVID-19)**, *University of Texas*, Austin, TX, USA.
- Jan. 2020 **Young Statisticians and Probabilists (invited talk)**, *Institut Henri Poincaré*, Paris, France.
- Jan. 2020 **MaiAGE seminar (invited talk)**, *INRA*, Jouy-en-Josas, France.
- Jan. 2020 **Séminaire Palaisien (invited talk)**, *ENSAE, DATAIA*, Palaiseau, France.
- Dec. 2019 **NeurIPS workshop on Causality and Machine Learning (poster)**, *Advances in Neural Information Processing Systems 32*, Vancouver, Canada.
- Dec. 2019 **Econometrics and Big Data seminar (invited talk)**, *Aix-Marseille University*, Marseille, France.
- Sept. 2019 **Statistique, mathématiques et applications (talk)**, Fréjus, France.

- June 2019 **51èmes Journées de Statistique (talk)**, *Université de Lorraine*, Nancy, France.
- June 2019 **Séminaire Systèmes complexes (invited talk)**, *EHESS*, Paris, France.
- May 2019 **Data science seminar for MDs in critical care management (talk)**, *Traumabase Group*, Paris, France.
- March 2019 **European Causal Inference Meeting (poster)**, *Leibniz Institute*, Bremen, Germany.
- March 2019 **DAGStat Conference (poster)**, *LMU München*, Munich, Germany.

Software development

- Website **R-miss-tastic: a unified platform on missing values methods**, *funded by the R Consortium*.

Scientific commitment

- 2020–Present **Member of the Editorial Board of the *YoungStatS* research blog**, *Young Statisticians of Europe*.
- 2020–Present **Referee**, *International Conference on Learning Representations (ICLR)*, *Biometrical Journal*.
- 2020–Present **Secretary of the *Groupe Jeunes* of the SFdS (French Statistical Society)**, (*responsibilities: organization of satellite events at the JdS, construction of European Young Statisticians network*).
- 2019–Present **Organizer of the *Young Statisticians and Probabilists* colloquium**, *SFdS*.

Languages and programming skills

German	Native	R	Advanced
English	Perfectly proficient	Python	Advanced
French	Perfectly proficient	C++	Intermediate
Korean	Elementary	SQL, matlab	Basics

Associative commitment and interests

- 2019–Present **Elected member of the parity and diversity committee**, *CMAP, École Polytechnique*, Palaiseau, France.
- 2018–Present **Member of R Foundation *Forwards* taskforce on women and other underrepresented groups**, (*responsibilities: diversity scholarship coordination*).

Hobbies I was born and grew up in Berlin and have been living mostly in France since 2013. I like to travel to different countries, because new foreign cultures and languages fascinate me. Curious and committed I meet all ventures and new challenges. In my free time I read a lot, do various sports (running, swimming, yoga, hiking and Korean folk dance) and regularly attend German and foreign language plays. I also enjoy playing the piano and sometimes the clarinet to relax.