



Francesca Panero

Curriculum Vitae

Gender: Female
Nationality: Italian
E-mail: francescaelena.panero@gmail.com

4rd (and last!) year PhD student in Statistics at the University of Oxford, under the supervision of Prof. F. Caron and Prof. J. Rousseau. I work on two research streams: networks models and privacy assessment. On the one hand, I work on a sparse spatial model for complex networks based on Bayesian nonparametric techniques and on a project to model multiscale networks for brain data. On the other, I am interested in the estimation of the disclosure risk arising in the publication of data under privacy constraints.

Education

- Feb – Mar 2020 **Visiting student at Duke University, Durham, North Carolina (USA).**
Working with David Dunson's group.
- Oct 2017 – Present **DPhil student in Statistical Science (OxWaSP: Oxford - Warwick Statistical Programme), University of Oxford.**
Expected graduation date: October 2021
- Oct 2015 – Jul 2017 **Senior Allievo, Allievi Honors Program, Collegio Carlo Alberto, Moncalieri, Italy.**
Master in Statistics and Applied Mathematics *with distinction*
- Sep 2015 – Jul 2017 **M.Sc. in Stochastics and Data Science, Università di Torino, Italy.**
Final grade: 110/110 *cum laude*
- Sep 2012 – Jul 2015 **Junior Allievo, Allievi Honors Program, Collegio Carlo Alberto, Moncalieri, Italy.**
Diploma Allievi in Economics *with distinction*
- Sep 2012 – Oct 2015 **Laurea in Matematica (Bachelor in Mathematics), Università di Torino, Italy.**
Final grade: 110/110 *cum laude*

Publications and Preprints

- 2019 **Optimal disclosure risk assessment, (to appear on the Annals of Statistics).**
F. Camerlenghi, S. Favaro, Z. Naulet, F. Panero. arXiv:1902.05354
- 2019 **On sparsity, power-law and clustering properties of graphex processes.**
F. Caron, F. Panero, J. Rousseau. arXiv:1708.03120

Working papers

- 2020 **Sparse spatial random graphs.**
F. Caron, F. Panero, J. Rousseau.
- 2020 **Multiscale brain connectomes.**
F. Ferrari, F. Panero, D. Dunson
- 2020 **Pitman-Yor estimation of disclosure risk assessment.**
F. Panero, T. Rigon, S. Favaro

Talks and posters

- Aug 2020 **Duke Graduate Summer Talks.**
Sparse spatial random graphs
- Dec 2019 **CMStatistics, invited session.**
Optimal disclosure risk assessment
- Jul 2019 **Bocconi Summer School in Advanced Statistics and Probability, poster.**
Sparse spatial random graphs
- Jun 2019 **Bayesian Nonparametrics 2019, poster.**
Sparse spatial random graphs
- Jun 2019 **Italian Statistical Society 2019, invited session.**
Optimal disclosure risk assessment
- Mar 2019 **Workshop on Machine Learning, Computational Statistics and Applications, Amazon Development Centre Germany, poster.**
Sparse spatial random graphs
- Jun 2018 **2018 ISBA World Meeting, poster.**
Optimal disclosure risk assessment

Work Experience

- Oct 2018 – **Tutor and TA in Applied Statistics, Department of Statistics, University of Oxford.**
present Marking and showing solutions to problem sheets for 3rd year students of the BA in Mathematics.
- Apr 2019 – **Tutor in Preliminary of Statistics and Data Science and Applied Statistics, University of Oxford.**
Jun 2019 Hertford College and Exeter College tutor.
- Sept 2012 – **Private student tutor in Mathematics and Physics, Torino.**
Aug 2017 Tutoring high school and middle school students.
- April 2015 – **Collaboration project with DB&B Consulting, Torino.**
July 2015 Thesis in collaboration with *DB&B Consulting*, risk management company.
- Aug. 2015 – **Internship, Accounting office RSM, Torino.**
Sept. 2015 Working on voluntary disclosures.
- Sept. 2014 **Speaker at the conference "Mathematics, Physics and Music", Torino.**
Lecturer for Alfaclass summer school of Mathematics, Fondazione CRT.

Scholarship and Awards

- Sept. 2017 – **EPSRC full scholarship (4 years), Oxford.**
present Scholarship covering salary, university fees and college fees.

- Sept. 2012 – **Allievi Honors Program full scholarship, Collegio Carlo Alberto, Moncalieri (TO).**
 Jul. 2017 Scholarship covering university fees.
 Aug. 2016 **Scholarship for summer school “Applied Bayesian Statistics”, Como.**
 Summer school “Bayes, Big Data, and the Internet” held by Dr. Steven Scott, Google.
 Awarded according to merit criteria.

Summer Schools

- Jul. 2019 **Bocconi Summer School in Advanced Statistics and Probability, Como.**
 Random Graphs and Complex Networks: Structure and Function.
 Remco van der Hofstad (Eindhoven University of Technology, NL), Shankar Bhamidi (University of North Carolina, USA)
 Aug. 2016 **Summer school “Applied Bayesian Statistics”, Como.**
 Bayes, Big Data, and the Internet.
 Dr. Steven Scott, Director of Statistics Research at Google
 Sept. 2013 **Alfaclass summer school of Mathematics, Università degli Studi di Torino.**
 Fondazione CRT, Diderot Project

Skills

Languages

- English** Fluent in speaking and writing
TOEFL exam (Oct. 2016): 109/120
French Good speaking and writing skills
DELFB1 exam (Feb. 2012): 92/100
Italian Native speaker

Computer Skills

Advanced: Python (PyCharm environment), R, \LaTeX
 Intermediate: GitHub, MATLAB, Microsoft Windows and Office (ECDL)
 Basic: HTML, SAS, SQL, C++, CUDA

Other Skills

GRE exam (Sept. 2016):
 Quantitative 170/170, Verbal 156/170, Analytical Writing 3.5.

Extra-Curricular Activities

- Organization** Co-organizer of the R Users Group in Oxford. Member of the committee at St. Peter's College Boat Club and Middle Common Room. Member of the Green Team in the Statistics Department, Oxford.
Volunteering Tutor for A-levels students in Mathematics from disadvantaged school in Oxford. French and English teacher and children entertainer in Gabon and Congo (08/2011, 08/2013). Experiences with refugees in Southern Italy (summer 2015 and 2016).
Music Playing piano. Conducting and singing in choirs. Co-founder of StatsChoir, Oxford.
Sport Rowing at college level at University of Oxford (since 2018). Synchronized swimming.