

Federico Ferraccioli

CURRICULUM VITAE

Contact Information

University of Padova
Department of Statistics
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Current Position

November 2019 – October 2021

Postdoctoral research fellow, University of Padova.

Supervisor: Prof. Giovanna Menardi

Research interests

- *Density estimation*
- *Nonparametric methods*
- *Clustering*
- *High dimensional models*
- *Penalized models*
- *Hypothesis testing*
- *Object Oriented Data Analysis*

Education

October 2016 – February 2020

PhD Student in Statistical Sciences, University of Padova.

Thesis title: Nonparametric methods for complex spatial domains: density estimation and hypothesis testing

Supervisor: Prof. Laura M. Sangalli

Co-supervisor: Prof. Livio Finos.

October 2014 – September 2016

Master (laurea specialistica/magistrale) degree in Statistical Sciences

University of Padova, Faculty of Statistical Sciences

Title of dissertation: “Topic modeling, behind the scenes: directed and undirected graphical models.”

Supervisor: Prof. Livio Finos

Final mark: 110/110 cum laude

October 2011 – July 2014

Bachelor degree (laurea triennale) in Statistics, Economics and Finance.

University of Padova, Faculty of Statistical Sciences

Title of dissertation: “Topic model workout: un approccio per l’analisi di microblogging, mass media e dintorni.”

Supervisor: Prof. Livio Finos

Final mark: 107/110.

Visiting periods

March 2018 – May 2019
University of Oslo,
Oslo, Norway.
Supervisor: Prof. Nils Lid Hjort

October 2018 – September 2019
Politecnico di Milano,
Milano, Italy.
Supervisor: Prof. Laura M. Sangalli

Further education

July 2018 – August 2018
Numerical Analysis
Scuola Matematica Interuniversitaria 2018 - Perugia
Instructor: Arieh Iserles (University of Cambridge)

July 2018 – August 2018
Commutative Algebra and Geometry
Scuola Matematica Interuniversitaria 2018 - Perugia
Instructor: Juan Migliore (University of Notre Dame)

Work experience

June 2009 – July 2009
Internship.
MyS S.r.l, business intelligence and consulting company.

Computer skills

- *R*
- *Python*
- *C/C++*
- *LaTeX*

Language skills

Italian: native; English: fluent.

Publications

Articles in journals and proceedings

Ferraccioli, F., Sangalli, L.M., Arnone, E., Finos, L. Nonparametric Likelihood Density Estimation on Bounded Domains. Book of Abstracts, EMS 2019 Conference of the International Society for Nonparametric Statistics, Salerno.

Ferraccioli, F., Sangalli, L.M., Finos, L. (2018) *Analysis of Data Over Complex Regions*. GRASPA 2019, Book of Abstract, Milano.

Ferraccioli, F., Sangalli, L.M., Finos, L. (2019) *Bounded Domain Density Estimation*. Book of Short Papers SIS2019, Proceedings of the 50th Scientific meeting of the Italian Statistical Society, Milano.

Finos, L., Hemerik, J., Ferraccioli, F., Sangalli, L.M., Goeman, J.J. (2018) *Robust testing of generalized spatial regression models by conditional score test*. Book of Abstracts, ISNPS 2018 4th Conference of the International Society for Nonparametric Statistics, Salerno.

Ferraccioli, F., Sangalli, L.M., Finos, L. *Density estimation via nonparametric penalized likelihood*. Book of Abstracts, ISNPS 2018 4th Conference of the International Society for Nonparametric Statistics, Salerno.

Matozzo, V., Fabrello, J., Masiero, L., Ferraccioli, F., Finos, L., Pastore, P., Bogialli, S. (2018). *Ecotoxicological risk assessment for the herbicide glyphosate to non-target aquatic species: A case study with the mussel *Mytilus galloprovincialis**. *Environmental Pollution*, 233, 623-632.

Ferraccioli, F. , Sangalli, L. M., Finos, L. (2018). *Nonparametric penalized likelihood for density estimation*, Book of Short Papers SIS2018, Proceedings of the 49th Scientific meeting of the Italian Statistical Society, Palermo.

Ferraccioli, F. , Finos, L. (2017). *Exponential family graphical models and penalizations*, Book of Short Papers SIS2017, Proceedings of the 48th Scientific meeting of the Italian Statistical Society, Firenze.

Chapters in books

Cappozzo, A., Ferraccioli, F., Stefanucci, M., & Secchi, P. (2017). "An Object Oriented Approach to Multimodal Imaging Data in Neuroscience." *START UP RESEARCH*. Springer, Cham, 2017.

PhD thesis

Nonparametric methods for complex spatial domains: density estimation and hypothesis testing.

Working papers

Ferraccioli, F. , Sangalli, L. M., Finos, L. *Nonparametric density estimation with differential regularization*. (submitted)

Ferraccioli, F. , Sangalli, L. M., Finos, L. *Testing the effect of covariates in semiparametric regression models*.

Ferraccioli, F. , Sangalli, L. M., Finos, L. *Two sample hypothesis testing for complex regions*.

Conference presentations

Nonparametric likelihood density estimation on bounded domains. EMS 2019, University of Palermo. July 2019

Analysis of Data Over Complex Regions (invited). GRASPA 2019, University of Pescara. July 2019.

Bounded domain density estimation SIS 2019 Università Cattolica del Sacro Cuore, Milano. June 2019.

Density estimation via nonparametric penalized likelihood. ISNPS 2018, University of Salerno. June 2018.

Nonparametric penalized likelihood for density estimation. SIS 2018, University of Palermo. June 2018.

Nonparametric density estimation with differential regularization (invited). ISA Workshop, "Frontiers in Functional Data Analysis", University College Dublin. March 2018.

Exponential family graphical models. SIS 2017. University of Firenze. July 2017.

Teaching experience

*September 2019 - February 2020
Statistica 2, Bachelor degree degree.
Lecturer.
Università degli Studi di Padova.
Instructor: Prof. Guido Masarotto.*

*March 2019
Statistica Iterazione, Master degree.
Specialized lecture, "Classification models for text mining".
Università degli Studi di Padova.
Instructor: Prof. Guido Masarotto.*

Other Interests

I studied at "F. Venezzes" Conservatory (Rovigo) for 7 years, classical double bass and music theory. I spend my free time reading and listening to podcasts about different topics, ranging from physical sciences, philosophy and technology. I love music and visual arts, with a particular predilection for architecture (early career dream).

References

Prof. Laura M. Sangalli

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Prof. Livio Finos

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