

# ANGELA ANDREELLA

## PhD Student - University of Padova

I am a Ph.D. student at the Department of Statistical Sciences of the University of Padova, [Cycle XXXIII](#). I am working with Professor [Livio Finos](#) about statistical methods to analyze neuroscience data, e.g., fMRI data. Mainly, my interest is to connect the psychological and statistical fields improving both areas. For that, I am a member of the [Psicostat](#) group at the University of Padua.

One project is about a spatial regularization of the Procrustes method used in the functional alignment of brain data, i.e., the von Mises-Fisher-Procrustes model. I am collaborating with Professor [James Haxby](#) from the Department of Psychological and Brain Sciences at Dartmouth College and with the [Haxby Lab](#).

Another project is about a permutation-based approach of the [All Resolution Inference](#) method under the supervision of Professor [Jelle Goeman](#) from the Department of Biomedical Data Sciences and Professor [Wouter Weeda](#) from the Department of Psychology at Leiden University.

I am also collaborating with [Paolo Brambilla](#) and [Giuseppe Delvecchio](#) on various psychiatric and psychological projects.

### INTERESTS:

- High Dimensional Statistics in Neuroscience, and Medicine in general;
- Multiple Testing and Selective Inference in Psychology, Psychiatry, Neuroscience, and Medicine in general;
- Permutation Tests in Psychology, Psychiatry, Neuroscience, and Medicine in general;
- Procrustes Methods in Neuroscience;
- Multivariate analysis in Psychology, Psychiatry, Neuroscience and Medicine in general.



## EDUCATION

10/2017  
– now

**University of Padova**  
PhD Student

📍 Padua, Italy

Thesis: Multivariate analysis in functional magnetic resonance imaging (fMRI) data

10/2013  
–  
03/2016

**University of Padova**  
M.S. in Statistical Science - 104

📍 Padua, Italy

Thesis: The Catalan National Movement analyzed by Twitter data.

10/2010  
–  
04/2013

**University of Padova**  
B.S. in Statistical Science - 110

📍 Padua, Italy

Thesis: Twitter Sentiment Analysis in Monti's 2013 election campaign.



## CONTACT INFO

✉ [a.andreella8@gmail.com](mailto:a.andreella8@gmail.com)

✉ [angela.andreella@phd.unipd.it](mailto:angela.andreella@phd.unipd.it)

📞 +393348250566

🐙 [github.com/angeella](https://github.com/angeella)

🐦 [aangeella](https://twitter.com/aangeella)

🌐 [angelaandreella.netlify.com](https://angelaandreella.netlify.com)

## LANGUAGES

**Professional proficiency:** Italian  
(mother tongue), English, Spanish

**Elementary proficiency:** French,  
Catalan

## COMPUTER SKILLS

**Statistical Packages:** R Software -  
SPSS - SAS - STATA

**Languages:** R - Python - Matlab -  
C++ - Markdown - SQL

**Other software:** LaTeX - Gimp -  
FSL - GIT

*This resume was made with the R  
package [pagedown](#).*

*Angela Andreella*



## STUDY VISITS

- 04/2019  
|  
07/2019 • **Visiting PhD Student**  
[LUMC](#), Department of Biomedical Data Sciences.  
📍 Leiden, Netherlands.
- 01/2019  
|  
04/2019 • **Visiting PhD Student**  
[Dartmouth College](#), Department of Psychological and Brain Sciences.  
📍 Hanover, NH, USA.
- 09/2013  
|  
07/2014 • **Erasmus Program**  
[Universitat de Barcelona](#), Department of Mathematics and Statistics.  
📍 Barcelona, Spain.



## TEACHING EXPERIENCE

- 10/2020  
|  
01/2021 • **Tutor - Psychometry - Bachelor Degree of Psychological Sciences of Development Personality and Interpersonal relations**  
[Department of Developmental Psychology and Socialization](#)  
📍 Padua, Italy
- 06/2020 • **Master's Lesson about Permutation-based Cluster-Mass in EEG data**  
[Department of Statistical Sciences, University of Padua, Italy](#)  
📍 Padua, Italy



## RESEARCH AND INTERNSHIP EXPERIENCE

- 01/2016  
|  
03/2016 • **Pre-Graduate Internship**  
[Stazione Zoologica Anton Dohrn](#) 📍 Naples, Italy
- 06/2014  
|  
06/2015 • **Pre-Graduate Internship**  
[Universitat Politècnica de Catalunya](#) 📍 Barcelona, Spain



## WORKING EXPERIENCE

- 09/2015  
|  
now • **Private Tutor**  
[Superprof](#) 📍 Italy
- 06/2016  
|  
07/2017 • **Data analyst**  
[Optima Italia](#) 📍 Naples, Italy
- 05/2016  
|  
06/2016 • **IT Consultant**  
[Atos S.r.l](#) 📍 Rome, Italy

*Luigi A. R. R.*

06/2013  
|  
08/2013

## Interviewer

VALMON S.r.l spin-off projects with the [University of Florence](#)

📍 Veneto, Italy

- conducting interviews in the context of the international European Social Survey (ESS) Round 6 Italy, a survey designed to describe and explain the attitudes, opinions, and behaviors of different European populations



## EDUCATIONAL EXPERIENCE

2017  
|  
Present

### Psicostat

University of Padova

📍 Padova, Italy

2020

### Statistical Consulting - COVID-19 analysis

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2019

### Interactive visualisation with R Shiny

Leiden University

📍 Leiden, Netherlands

2018

### Bayesian Data Analysis and Computation

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### Variational Approximations in Statistics

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### Sampling Theory

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### Mortality : Empirical Analysis and Forecasting Models

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### Regression Modelling with Large Data Sets

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### Kalman Filter and State Space Models

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2018

### An Introduction to Missing Data Handling

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2017

### Programming with Python

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2017

### Statistical Learning and Data Science

University of Padova, Department of Statistical Sciences

📍 Padova, Italy

2017

### Stochastic calculus of variations and normal approximations

[27th Jyväskylä Summer School](#)

📍 Jyväskylä, Finland

2017

### Value of information analysis in spatial model

[27th Jyväskylä Summer School](#)

📍 Jyväskylä, Finland

*Luca Butti*









- 2017 ● **Online Social Media Analytics**  
[27th Jyväskylä Summer School](#)  Jyväskylä, Finland






## PUBLICATIONS

- 2020 ● **Permutation-based true discovery proportions for fMRI cluster analysis.**  
To be submitted  
**Andreella, A.**, Goeman, J., Weeda, W., Hemerik, J., Solari, A., and Finos, L.
- 2020 ● **The von Mises-Fisher-Procrustes model in functional Magnetic Resonance Imaging data.**  
To be submitted  
**Andreella, A.**, and Finos, L.
- 2020 ● **Visualizing the structural neuroanatomy of functional aligned fMRI data: the von Mises-Fisher-Procrustes model.**  
To be submitted  
**Andreella, A.**, Feilong, M., Halchenko, Y., Haxby, J. V. L., and Finos, L.
- 2020 ● **A Statistical Approach to the Alignment of fMRI Data.**  
[Book of short papers - SIS 2020](#)  
**Andreella, A.**, Feilong, M., Halchenko, Y., Haxby, J. V. L., and Finos, L.
- 2020 ● **The Effect of DHA Supplementation on Cognition in Patients with Bipolar Disorder: An Exploratory Randomized Control Trial.**  
Nutrients [doi: 10.3390/nu12030708](#)  
Ciappolino, V. and DelVecchio, G. and Prunas, C. and **Andreella, A.** and Finos, L. and Caletti, E. and Siri, F. and Mazzocchi, A. and Botturi, A. and Turolo, S. and Agostoni, C. and Brambilla, P.
- 2019 ● **Altered syntactic abilities in first episode patients: An inner phenomenon characterizing psychosis.**  
European Psychiatry [doi: 10.1016/j.eurpsy.2019.08.001](#)  
Delvecchio, G., Caletti, E., Perlini, C., Siri, F. M., **Andreella, A.**, Finos, F., Bellani, M., Fabbro, F., Lasalvia, A., Bonetto, C., Cristofalo, D., Scocco, P., D'Agostino, A., Torresani, S., Imbesi, M., bellini, F., Veronese, A., Bressi, V., and Brambilla, P.
- 2018 ● **Prosody abilities in a large sample of affective and non-affective first episode psychosis patients.**  
Comprehensive Psychiatry [doi: 10.1016/j.comppsy.2018.07.004](#)  
Caletti, E., Delvecchio, G., **Andreella, A.**, Finos, L., Perlini, C., Tavano, A., Lasalvia, A., Bonetto, C., Cristofalo, D., Lamonaca, D., Ceccato, C., Pileggi, F., FaustoMazzi, F., Santonastaso, P., Ruggeri, M., Bellani, M., and Brambilla, P.

## TALKS

- 12/2020 • **pARI package: valid double-dipping via permutation-based All Resolutions Inference**  
[EuroBioC2020](#)  Virtual conference
- 02/2020 • **Quot capita, tot sententiae. Don't Forget to Use Anatomical Features into the Alignment of fMRI Data**  
[Cognitive Science Arena](#)  Brixen, Italy
- 09/2019 • **A Statistical approach to the alignment of fMRI data**  
[6th European Student Conference on Behaviour & Cognition](#)  Padua, Italy
- 12/2019 • **First steps with Python**  
[Psicostat 3.1](#)  Padua, Italy
- 07/2019 • **A Statistical approach to the alignment of fMRI data**  
[12th IBS - Italian Region conference](#)  Naples, Italy
- 06/2019 • **How to improve the functional alignment of fMRI data usingspatial brain information?**  
HighDim reading club  Leiden, Netherlands
- 04/2019 • **A Statistical approach to the alignment of fMRI data**  
[Psicostat 3.0](#)  Padua, Italy
- 02/2019 • **A Statistical approach to the alignment of fMRI data**  
Haxby Lab  Hanover, New Hampshire, USA

## POSTERS

- 06/2020 • **Improving the Functional Alignment of fMRI Data Using Spatial Brain Information**  
[Organization for Human Brain Mapping \(OHBM\)](#)  Virtual conference
- 06/2020 • **PRDA package: Enhancing Statistical Inference via Prospective and Retrospective Design Analysis**  
[European R users meeting \(eRum\)](#)  Virtual conference
- 10/2019 • **A Statistical approach to the alignment of fMRI data**  
Zero Tre, Prospettive e Nuove Ricerche in Psicometria  Padua, Italy

## MEMBERSHIPS

- **Member of the Italian Region of the International Biometrical Society**  
[Italian Region of the International Biometric Society](#)
- **Member of Organization for Human Brain Mapping (OHBM)**  
[Organization for Human Brain Mapping](#)

## HONOURS AND AWARDS

- 2012 • **Scholarship for excellence by the University of Padua**

*Luigi De Luca*



## CERTIFICATION

- 2016 ● **SQL Fundamental Course**  
[SoL - Society for Organizational Learning - Italy](#)
- 2015 ● **Security training course**  
[University of Padova](#)
- 2013 ● **Certificate of Interviewer**  
[VALMON S.r.l](#)



## AUTHOR/CONTRIBUTOR OF THE FOLLOWING PACKAGES FOR R/PYTHON

- [pARI](#)
- [PRDA](#)
- [vMFPmodel](#)
- [ARleeg](#)

Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).

*Angela Antoch*