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 psychiatrical 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

✉ angela.andreella@phd.unipd.it

📞 +393348250566

⌨ github.com/angeella

🐦 aangeella

🌐 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**.*

🎓 STUDY VISITS

Visiting PhD Student
04/2019
|
07/2019
LUMC, Department of Biomedical Data Sciences.
📍 Leiden, Netherlands.

Visiting PhD Student
01/2019
|
04/2019
Dartmouth College, Department of Psychological and Brain Sciences.
📍 Hanover, NH, USA.

Erasmus Program
09/2013
|
07/2014
Universitat de Barcelona, Department of Mathematics and Statistics.
📍 Barcelona, Spain.

🖥 TEACHING EXPERIENCE

Tutor - Psychometry - Bachelor Degree of Psychological Sciences of Development Personality and Interpersonal relations
10/2020
|
01/2021
Department of Developmental Psychology and Socialization
📍 Padua, Italy

Master's Lesson about Permutation-based Cluster-Mass in EEG data
06/2020
Department of Statistical Sciences, University of Padua, Italy
📍 Padua, Italy

💻 RESEARCH AND INTERNSHIP EXPERIENCE

Pre-Graduate Intership
01/2016
|
03/2016
Stazione Zoologica Anton Dohrn
📍 Naples, Italy

Pre-Graduate Intership
06/2014
|
06/2015
Universitat Politecnica de Catalunya
📍 Barcelona, Spain

💼 WORKING EXPERIENCE

Private Tutor
09/2015
|
now
Superprof
📍 Italy

Data analyst
06/2016
|
07/2017
Optima Italia
📍 Naples, Italy

IT Consultant
05/2016
|
06/2016
Atos S.r.l
📍 Rome, Italy

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

📍 Jyvaskyla, Finland

2017

Value of information analysis in spatial model
27th Jyväskylä Summer School

📍 Jyvaskyla, Finland

2017   ● **Online Social Media Analytics**
        27th Jyväskylä Summer School   ● Jyvaskyla, 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.comppsych.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

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**

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

- **ARIpermutation**
- **PRDA**
- **vMFPmodel**
- **ARIeeg**