



Annalisa Barla

Associate professor

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Education and training

2005

PhD in Computer Science

A general framework for Image Kernel Engineering
Università di Genova - Genova - IT

2001

MSc in Physics

Rappresentazione dati nella teoria statistica dell'apprendimento (Data representation in statistical learning theory)
Università di Genova - Genova - IT

Academic experience

2017 - ONGOING

Associate Professor in Computer Science

Università di Genova - Genova - IT

2012 - 2017

Assistant Professor in Computer Science

Università di Genova - Genova - IT

2008 - 2011

Research Fellow (Assegnista di Ricerca)

Università di Genova - Genova - IT

2006 - 2007

Research Fellow

ITC-IRST (now Fondazione Bruno Kessler) - Trento - IT

2005

Intern

Siemens Corporate Research - Princeton NJ - US

Language skills

English

Proficient

Italian

Mother tongue

Teaching activity

My teaching activity revolves mainly about the topics of my research:

- *digital signal and image processing* for computer scientists
- *bioinformatics and computational biology* for computer scientists
- *introduction to machine learning* for medical students
- *introduction to data science and visualization* for designers

Postgraduate research and teaching activity

Supervision of PhD students, residents and post-doctoral fellows

As a PhD supervisor, I worked with:

- Margherita Squillario
- Samuele Fiorini
- Chiara Martini
- Federico Tomasi
- Vanessa D'Amario
- Veronica Tozzo
- Davide Garbarino

PhD committees membership

- Medicina Translazionale in Oncologia ed Ematologia (2013-2016, ongoing)
- Computer Science and Systems Engineering (2017-2018)

Research interests

My main areas of interest are in the field of data science. I have been working in the past decade on machine learning methods for variable selection with sparse regularization and reproducible and robust methods in the small n large p setting. Currently I am expanding my scientific interest towards the understanding and visualization of complex structured data.

I am author and co-author of more than 50 peer reviewed journal and conference papers. Visit my Google Scholar profile to access a list of my publications at <https://bit.ly/2TIEhQc>

Grants

2018 - ONGOING

Advancing non-invasive procedures for the support of early diagnosis of partial epilepsies

Compagnia di Sanpaolo - IT

170Keur - Pricipal investigator

2016 - ONGOING

Early DETECTION of Multiple Sclerosis progression driven by clinical scales and Patient Reported Outcome (DETECT-MS PRO)

FISM - Fondazione Italiana Sclerosi Multipla - IT

110Keur - Pricipal investigator

2015

Detection of High Frequency Oscillations in Stereo-Electroencephalography with Sparse and Adaptive Dictionary Learning

Universita' di Genova - Fondi di ricerca di ateneo - IT

15keur - Pricipal investigator

2012 - 2013

Applicazioni di tecniche avanzate di sequenziamento del genoma (Next Generation Sequencing NGS) dalla ricerca alla pratica clinica

CARIGE - IT

100Keur - Pricipal investigator

2012

Modelli e metodi computazionali per grandi quantità di dati

Universita' di Genova - Fondi di ricerca di ateneo - IT

14keur - Pricipal investigator

Editorial activity

- Expert project reviewer
Research Executive Agency - EU H2020-MSCA-ITN-2017 (H2020 Marie Sklodowska-Curie Actions)
- Scientific Advisory Board
EU H2020 - Personalised Medicine Trials (PERMIT)
- Program Committee Member
SCIPY 2017 - Scientific Computing with Python, AISTATS 2017 - The 20th International Conference on Artificial Intelligence and Statistics, ICHI 2014 - IEEE International Conference on Healthcare Informatics 2014 (ICHI 2014) - Verona, Italy, IJCAI-13 - 23rd International Joint Conference on Artificial Intelligence - Beijing, China, IDAMAP 2012 - Intelligent Data Analysis in bioMedicine and Pharmacology - Pavia, Italy
- Reviewer
- Conferences
AISTATS 2018 (20th International Conference on Artificial Intelligence,

NIPS - 2017 (Neural Information Processing Systems), CIBB - 2017 (Computational Intelligence methods for Bioinformatics and Biostatistics), AAAI-17 (Thirty-First AAAI Conference on Artificial Intelligence), AISTATS 2017 (20th International Conference on Artificial Intelligence and Statistics), NIPS - 2016 (Neural Information Processing Systems), ESANN - 2014 (European Symposium on Artificial Neural Networks), SciPy 2017 (Scientific Computing with Python)

- Journals

Bioinformatics, Plos One, BMC Genomics, Briefings in Bioinformatics, Pattern Recognition, Machine Learning, Neural Computation, Pattern Recognition, Neural Computation, Neurobiology of Aging, 'Bringing Maths to Life' (Springer Ed.), Inverse Problems in Science and Engineering, Statistical Applications in Genetics and Molecular Biology.