# Massimiliano Russo

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Homepages: https://rmassimiliano.github.io

## Education

2015–2019 PhD in Statistical Sciences, University of Padova, Dept. of Statistical Sci-

ences,

Thesis: Bayesian inference for tensor factorization models.

Advisor: Bruno Scarpa

2013–2015 Master in Statistical Sciences, University of Padova, Dept. of Statistical Sci-

ences, Final Mark: 110/110 cum laude,

Thesis: Olfactory perception differences in Italian regions: a nonparametric

Bayesian approach to tensor factorization.

Advisor: Bruno Scarpa; Co-advisor: Giancarlo Ottaviano

2009 - 2013 Bachelor in Statistical and Actuarial sciences, Università degli studi del San-

nio, Benevento, Final Mark: 110/110 cum laude,

Thesis: Multivariate robust estimation.

Advisor: Luca Greco

### Academic experience

Published Cabassi, A., Casa, A., Fontana, M., Russo, M., and Farcomeni, A., Three testing perspectives on connectome data, Springer Proceedings in Mathematics & Statistics, vol 257, 37–55. Springer, Cham, 2018.

Russo, M., Durante, D. & Scarpa, B., Bayesian Inference on Group Differences in Multivariate Categorical Data, Computational Statistics & Data Analysis. 126, 136-149, 2018.

Cantone E., Ciofalo A., Vodicka J., Iacono V., Mylonakis I., Scarpa B., Russo M., Iengo M., de Vincentiis M., Martini A. and Ottaviano G., Pleasantness of olfactory and trigeminal stimulants in different Italian regions., European Archives of Oto-Rhino-Laryngology, 1–7, 2017.

<u>Russo, M.</u>, Detecting Group Differences in Multivariate Categorical Data, Proceedings the Italian Statistical Society, Firenze University Press, 2017.

Submitted Russo, M., Singer, B. H. & Dunson, D. B., Multivariate mixed membership modeling: Inferring domain-specific risk profiles, arXiv preprint, arXiv:1901.05191.

Presentations **Soft classification tree ensemble of Higgs pair production**, *Advanced Statistics for Physics Discovery*, Padova, Italy, September 24, 2018, (Poster).

**Scalable inference for network factor model**, *Advanced Statistics for Physics Discovery*, Padova, Italy, September 24, 2018, (Speed Talk).

Multivariate mixed membership modeling: Inferring domain-specific risk profiles, *IBC2018*, Barcellona, Spain, July 10, 2018, (Contributed talk).

Multivariate mixed membership modeling: Inferring domain-specific risk profiles, ISBA2018, Edinburgh, United Kingdom, June 29, 2018, (Poster).

A multivariate mixed membership model for malaria risk detection, Obayes2017, Austin, Texas, December 11, 2017, (Poster).

Detecting Group Differences in Multivariate Categorical Data, SIS2017, Florence, Italy, June 28, 2017, (Poster).

Bayesian Inference on Group Differences in Multivariate Categorical Data, COBAL V, Cimat, Guanajuato, Mexico, June 8, 2017, (Contributed talk).

Bayesian Inference on Group Differences in Multivariate Categorical Data, ISBA2016, Sardinia, Italy, June 16, 2016, (Poster).

Parallel Computing for big data analysis, 16 & 23 March 2018, Specialist lectures during the class of Statistical Methods for Big Data Analysis of Prof. Bruno Scarpa, University of Padova, Dept. of Statistical Sciences, Padova, Italy.

Research interests

Bayesian nonparametrics, Tensor Factorization, Categorical variables, Hierarchical models, Models for Latent Variables, Machine Learning and Data Mining, Computational Statistics.

#### **Awards**

Winner of the 3 minutes thesis competition selection of Dept. of Statistical Sciences, University of Padova, October 19, 2018.

Young researcher travel award ISBA2018, Edinburgh, United Kingdom.

Young researcher travel award ISBA2016, Sardinia, Italy.

## Work experience

Oct. 2014 - Jul. 2015 Tutor, University of Padua, Dept. of Statistical Sciences, Padova. Small lectures and homework assistance for undergraduate/graduate students.

#### Study visits

Nov. 2016 - June 2017 Visiting Research Scholar, Duke University, Department of Statistical Science, Sept. 2017 - Mar. 2018 Durham, NC, USA, under the supervision of prof. David B. Dunson.

#### Languages

Italian: native; English: fluent; French: basic; Spanish: basic

## Computing skills

Programming languages R (advanced) practice of Rcpp, plyr/dplyr, ggplot2, shiny libraries, C/C++,JAVA, Python, Julia, Matlab.

Operative System Linux (Fedora/Ubuntu), Windows, OSX and relative softwares.

Software SPSS, PSPP, Office, SQL/MYSQL,Bugs/Jags/Stan, Nimble.

Other LATEX, Sweave, Knitr, Markdown, git/github, vim & emacs.

18 January 2018