

Marco Scutari

PERSONAL INFORMATION	Date of Birth: Place of Birth: Citizenship:	05/06/1982 Padova, Italy Italian
CONTACT INFORMATION	Department of Statistical Sciences University of Padova Via Cesare Battisti 241 35121, Padova, Italy	<i>e-mail:</i> marco.scutari@stat.unipd.it marco.scutari@gmail.com
EDUCATION	University of Padova, Padova, Italy Ph.D. Student at the Ph.D. School in Statistical Sciences Department of Statistical Sciences Research Project: “ <i>Robustness and goodness of fit of Bayesian Network structure learning algorithms</i> ” Supervisor: Prof. Adriana Brogini, Department of Statistical Sciences, University of Padova. University of Padova, Padova, Italy M.Sc., Statistics and Computer Science Faculty of Statistical Sciences Thesis: “ <i>Network Bayesiani: un approccio non parametrico basato sull’entropia per la selezione del modello</i> ” (<i>Bayesian Networks: an entropy-based non parametric approach to model selection</i>) Supervisors: Prof. Adriana Brogini and Prof. Fortunato Pesarin, Department of Statistical Sciences, University of Padova. University of Padova, Padova, Italy B.Sc., Statistics and Information Technologies Faculty of Statistical Sciences Thesis: “ <i>Miglioramenti della carta di controllo AEWMA</i> ” (<i>Improvements of the AEWMA Quality Control Chart</i>) Supervisor: Prof. Guido Masarotto, Department of Statistical Sciences, University of Padova. University of Cambridge International Examinations Preliminary English Test (PET)	2008 – present 2004 – 2007 2001 – 2004 June 2000
VISITING PERIODS	Leipzig University, Leipzig, Germany Institut für Medizinische Informatik, Statistik und Epidemiologie (IMISE) Supervisor: Prof. Korbinian Strimmer.	October – November 2009

ADVANCED
COURSES

University of Padova, Padova, Italy
Advanced Course in “*Monte Carlo Statistical Methods*”
Ph.D. School in Statistical Sciences
Department of Statistical Sciences

June 2010

Instructor: George Casella, University of Florida.

Donau University, Krems, Austria
Short Course in “*Statistical Learning and Data Mining*”
Center for Bioinformatics and Biostatistics

September 2009

Instructors: Prof. Trevor Hastie and Prof. Robert Tibshirani, Department of Statistics, Stanford University.

University of Padova, Padova, Italy
Short Course in “*Analysis of Clustered Categorical Data*”
Ph.D. School in Statistical Sciences
Department of Statistical Sciences

May 2009

Instructor: Prof. Alan Agresti, Department of Statistics, University of Florida.

University of Padova, Padova, Italy
Advanced Course in “*Statistical Methods*”
Ph.D. School in Information Engineering
Department of Information Engineering

November – December 2008

Instructor: Prof. Lorenzo Finesso, Institute for Biomedical Engineering (ISIB), National Research Council (CNR).

REFeree
ACTIVITY

Data Mining and Knowledge Discovery (Springer)
Journal of Statistical Software (American Statistical Association)

FELLOWSHIPS &
AWARDS

Research Fellowship, University of Padova

2008 – present

WORKS &
PUBLICATIONS

2010

Software

bnlearn R package, updated on 07/01 (1.8), on 14/02 (1.9), on 11/05 (2.0), on 14/06 (2.1) and 10/07 (2.1.1).

Books

Nagarajan, R., Datta, S., and Scutari, M. (2010). *Graphical Models in R*. Use R! series. Springer. In preparation.

Book Chapters

Scutari, M. and Strimmer, K. (2010). Introduction to graphical modelling. In Balding, D. J., Stumpf, M., and Girolami, M., editors, *Handbook of Statistical Systems Biology*. Wiley. In preparation.

Refereed Journal Articles

Nagarajan, R., Datta, S., Scutari, M., Beggs, M. L., Nolen, G. T., and Peterson, C. A. (2010). Functional Relationships Between Genes Associated with Differentiation Potential of Aged Myogenic Progenitors. *Frontiers in Systems Biology*. Submitted for publication.

Scutari, M. (2010a). Learning Bayesian Networks with the bnlearn R Package. *Journal of Statistical Software*, 35(3):1–22.

Scutari, M. (2010b). Measures of Variability for Bayesian Network Graphical Structures. *Journal of Multivariate Analysis*. Submitted for publication.

2009

Software

bnlearn R package, updated on 12/01 (1.1), on 04/02 (1.2), on 29/03 (1.3), on 05/05 (1.4) on 14/06 (1.4.1), on 21/07 (1.5), on 24/08 (1.6) and on 25/10 (1.7).

Collaboration with Prof. Radhakrishnan Nagarajan (Assistant Professor at the Department of Biostatistics, University of Arkansas for Medical Sciences) for the development of NATbox, a toolbox for the analysis of gene expression profiles.

packdep R package (co-authored with Radhakrishnan Nagarajan), accepted on CRAN on 18/07 (0.1): updated on 26/07 (0.2).

Refereed Conference Proceedings

Chavan, S. S., Bauer, M. A., Scutari, M., and Nagarajan, R. (2009). NATbox: a Network Analysis Toolbox in R. *BMC Bioinformatics*, 10(Suppl 11):S14. Supplement contains the Proceedings of the 6th Annual MCBIOS Conference (Transformational Bioinformatics: Delivering Value from Genomes).

Technical Reports/Working Papers

Scutari, M. (2009). Structure Variability in Bayesian Networks. Working Paper 13-2009, Department of Statistical Sciences, University of Padova. Deposited on arXiv in the Statistics - Methodology archive, available from <http://arxiv.org/abs/0909.1685>.

Invited Talks

Title: “*Comparing Bayesian networks and structure learning algorithms*”
Institut für Medizinische Informatik, Statistik und Epidemiologie (IMISE),
Leipzig University.
October 20, 2009.

Title: “*Structure Variability in Graphical Models*”
Machine Learning / Intelligent Data Analysis Group
Institut für Softwaretechnik und Theoretische Informatik
Technische Universität Berlin
November 5, 2009.

Conference Presentations

Chavan, S. S., Bauer, M. A., Scutari, M., and Nagarajan, R. (2009). A Parallel Version of the Network Analysis Toolbox (NATbox). Presented at the 6th Annual Conference of the MidSouth Computational Biology and Bioinformatics Society (MCBIOS), Starkville, Mississippi, February 20 – 21.

2008

Software

bnlearn R package, updated on 09/02 (0.6), on 25/03 (0.7), on 20/06 (0.8), on 08/09 (0.9) and on 01/11 (1.0).

Invited Talks

Title: “*Network Bayesiani: selezione del modello*”
(*Bayesian Networks: structure learning algorithms*)
Department of Information Engineering, University of Padova.
November 4, 2008.

Conference Presentations

Chavan, S. S., Scutari, M., and Nagarajan, R. (2008). NATbox: A Network Analysis Toolbox in R. Presented at the 6th Annual Rocky Mountain Bioinformatics Conference of the International Society for Computational Biology, Aspen/Snowmass, December 4 – 7.

2007

Software

bnlearn R package, accepted on CRAN on 07/09 (0.3): updated on 11/11 (0.4) and 08/12 (0.5).

TEACHING

2007 – 2008

Teaching Assistant of “Database Management Systems II”
Faculty of Statistical Sciences, University of Padova.