

Curriculum Vitae et Studiorum

25/07/2014

Personal Information

Name / Surname Mario Santoro
Address Via Tiburtina Antica 12, 00185 Roma Italia
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Citizenship Italian
Born Date 23/04/1979

Sex M

Actually I'm working on

- **Trying to estimate current impact of mathematics on italian industry and future development. In collaboration with Sportello Matematico's Team.**
- **Statistical sampling by sectors and dimensions for italian industries in order to make a survey on collaboration between italian mathematics community and italian industries.**
- **Finding what kind of complex immunotherapy as to be developed (in term of molecules type and number) for around 60,000 allergic patients registered at the Interall-Allergome database. In collaboration with Adriano Mari and Sara Zuzzi.**
- **Trying to develop an aggregated index for sonographic measures of fetal blood circulation**
- **Writing a micro-book of recepies for MapReduce in MongoDB for packtpub.com using R as frontend. In collaboration with Giulio Fidente.**
- **Compiling and installing OpenELEC on my RaspberryPi as a home media station.**

Education

01/01/2005 - 30/06/2009

Qualification Mathematics Ph.D.

Main issues and occupational skills

BioMathematics.
Thesis Title: *Mathematical modelling of HIV-1 dynamics in vivo.*
Numerical Modeling, ODE, Time-series and phylogenesis analysis

Institution Dipartimento di Matematica – Tor Vergata Università di Roma

29/10/2004

Qualification Physics Degree

25/07/2014

Main issues and occupational skills	Theoretical Physics: Quantum mechanics, Dynamical Systems, Statistical Mechanics, Probability. Thesis Title: <i>Evoluzione di sistemi complessi nel global change: modelli numerici applicati a crisi climatica e crisi energetica</i> . Graduation Mark: 110/110 <i>cum laude</i>
Institution	Dipartimento di Fisica - Università di Roma La Sapienza
Professional Experiences	
1/12/2012-today	
Job/Position	Research Associate at Sportello Matematico per l'Industria Italiana. Assegno IAC (prot. 1281 del 20/11/2012)
Main activities and responsibilities	Industrial Mathematics; Project Management; Technology Transfer; Applied Mathematics
Institution name and address	SM[i] ² IAC -CNR , via dei Taurini, 19, Roma.
Sector	Innovation
1/02/2012-30/11/2012	
Job/Position	Research Associate.
Main activities and responsibilities	Statistical Inference for molecular and allergy data. Development of automatic statistics and graphical representations in R and PHP
Institution name and address	CAM. Center for Molecular Allergology. Istituto Dermatologico dell'Immacolata. Via dei monti di Creta, Roma.
Sector	Biostatistics
01/01/2010-31/12/2011	
Job/Position	Research Associate
Main activities and responsibilities	Statistical Inference for molecular and allergy data. Development of automatic statistics and graphical representations in R and PHP
Institution name and address	CAM. Center for Molecular Allergology. Istituto Dermatologico dell'Immacolata. Via dei monti di Creta, Roma.
Sector	Biostatistics
01/10/2011 – 31/12/2011	
Job/Position	Research Associate
Main activities and responsibilities	Drug users dynamics. A compartmental model of drug users to make scenario analyses.
Institution name and address	Centro Interdipartimentale di Biostatistica e Bioinformatica – Università di Roma Tor Vergata – via Montpellier, Roma
Sector	Applied Mathematics

01/01/2010-30/09/2011

Job/Position Research Associate
Main activities and responsibilities Analysis and model for managing data of patient under anti-AIDS treatments.
Institution name and address Facoltà di Medicina – Università di Roma Tor Vergata – Via Montpellier, Roma
Sector Biostatistics

12/03/2011 - 03/04/2011

Job/Position Research contract
Main activities and responsibilities HIV and Immune systems modeling
Institution name and address Université de Cergy-Pontoise - <http://www.u-cergy.fr/index.php>
Sector Biomathematics

27/05/2010 - 30/06/2010

Job/Position Research contract
Main activities and responsibilities HIV and Immune systems modelling
Institution name and address Université de Cergy-Pontoise - <http://www.u-cergy.fr/index.php>
Sector Biomathematics

01/07/2009 - 31/12/2009

Job/Position Temporary collaborator
Main activities and responsibilities Epidemiological databases and probabilistic linkage using Oracle and R
Institution name and address Dipartimento Epidemiologia - ASL ROMA E Roma
Sector Data Manager



01/03/2009 - 07/04/2009

Job/Position Research Grant
Main activities and responsibilities HIV and Immune systems modelling
Institution name and address GREFI-MEFI LPTM-Université de Cergy-Pontoise
Sector Biomathematics

	01/01/2007 - 31/12/2007
Job/Position	Research contract
Main activities and responsibilities	Mortality for cause in the town of Ciampino and surrounding municipalities in the years 1987-2002
Institution name and address	Dipartimento Statistica, Probabilità e Statistica Applicata Università di Roma La Sapienza, Piazzale A. Moro, Roma
Sector	Environmental Statistics
	13/10/2005 - 13/02/2006
Job/Position	Annual scholarship winner
Main activities and responsibilities	Use of models for the study and forecast of air quality in the Ciampino municipality: current status, future scenarios, possible solutions
Institution name and address	Ciampino Municipality, Largo Felice Armati, Ciampino (RM)
Sector	Environmental Statistics
	01/12/2004 - 01/06/2005
Job/Position	Research Grant
Main activities and responsibilities	Dynamics and evolution of HIV. Statistical characterization of patient during therapy interruption
Institution name and address	Facoltà di Medicina – Università di Roma Tor Vergata – Via Montpellier, Roma
Sector	Biostatistics
Personal skills and competences	
Native Speaker	Italian
Other Languages	English, French

Informatics | Installation and use of most popular O.S: (Windows, Unix, BSD, Linux, MacOS X, ...)
 Server linux-based administration.
 Deep use of R, Php, Mysql, MS Sql, MongoDB, Fortran, C++,
 Mathematica, Matlab and open-source equivalent (octave, maxima,...),
 Gnuplot.
 In particular: very deep use of R as a client in statistical elaboration (time-series, survival, numerical models, ggplot2 graphs,...) and as a server (multi-user web interface Rstudio e automated R-script interacting with PHP or simply in tcl-tk)
 Text editing with LateX and MS Office-like suite.
 Installation and customization of WordPress for websites creation
 (www.scienzadiffusa.it, <http://bupa.altervista.org/>,
<http://www.glicemiaspecchiomente.it/>)
 A little bit of image editing with GIMP

Publications List

- Authors: M. Bertsch, F. Visconti, M. Ceseri, G. Felici, R. Natalini, **M. Santoro**, A. Sgalambro.
 Title: Mathematical Desk for Italian Industry: an applied and industrial mathematics project
 Journal: AIRO Winter 2013 Procedia in publication
- Authors: **M Santoro**, L Triolo, C Rossi
 Title: Drug user dynamics: a compartmental model of drug users for scenario analyses
 Journal: Drugs: education, prevention and policy, June 2013; 20(3): 184–194
- Authors: C Alessandri, S Sforza, P Palazzo, F Lambertini, S Paoella, D Zennaro, C Rafaiani, R Ferrara, M L Bernardi, **M Santoro**, S Zuzzi, I Giangrieco, A Dossena, A Mari
 Title: [Tolerability of a Fully Matured Cheese in Cow's Milk Allergic Children: Biochemical, Immunochemical, and Clinical Aspects](#)
 Journal: PLoS ONE 7(7): e40945, July 2012
- Authors: D Pomponi, M L Bernardi, M Liso, P Palazzo, L Tuppo, C Rafaiani, **M Santoro**, A Labrada, M A Ciardiello, A Mari, E Scala
 Title: [Allergen Micro-Bead Array for IgE Detection: A Feasibility Study Using Allergenic Molecules Tested on a Flexible Multiplex Flow Cytometric Immunoassay](#)
 Journal: PLoS ONE 7(4): e35697, April 2012

- Authors: C Alessandri, D Zennaro, E Scala, R Ferrara, M Livia Bernardi, **M Santoro**, P Palazzo, A Mari
Title: [*Ovomucoid \(Gal d 1\) specific IgE detected by microarray system predict tolerability to boiled hen's egg and an increased risk to progress to multiple environmental allergen sensitisation*](#)
Journal: Clinical & Experimental Allergy, vol. 42(3):441-450, March 2012
- Authors: Gobron T., **Santoro M.**, Triolo L.
Title: *Competing HIV strains and immune system response*
Journal: Submitted to Bulletin of Mathematical Biology 2012. Minor revisions
Early draft on [arXiv \(http://arxiv.org/abs/1101.2851\)](http://arxiv.org/abs/1101.2851)
- Authors: Bernardi M.L., Giangrieco I., Camardella L., Ferrara R., Palazzo P., Panico M.R., Crescenzo R., Carratore V., Zennaro D., Liso M., **Santoro M.**, Zuzzi S., Tamburrini M., Ciardiello M.A., Mari A.
Title: [*Allergenic Lipid Transfer Proteins from Plant-Derived Foods Do Not Immunologically and Clinically Behave Homogeneously: The Kiwifruit LTP as a Model*](#)
Journal: PLoS ONE 6(11): e27856, November 2011
- Authors: E Scala, C Alessandri, P Palazzo, D Pomponi, M Liso, ML Bernardi, R Ferrara, D Zennaro, **M Santoro**, C Rasi, A Mari
Title: [*IgE Recognition Patterns of Profilin, PR-10, and Tropomyosin Panallergens Tested in 3,113 Allergic Patients by Allergen Microarray-Based Technology*](#)
Journal: PLoS ONE 6(9): e24912, September 2011
- Authors: ML Bernardi, I Giangrieco, L Camardella, MR Panico, D Zennaro, R Ferrara, P Palazzo, L Tuppo, M Tamburrini, V Carratore, **M Santoro**, M A Ciardiello, A Mari
Title: [*Biochemical and immunological characterisation of Act d 10 a lipid transfer proteins from green kiwifruit*](#)
Journal: Clinical and Translational Allergy, Vol.1(Suppl 1):O23, August 2011
- Authors: M Trignetti, T Sing, V Svicher, MM Santoro, F Forbici, R D'arrigo, MC Bellocchi, **M Santoro**, P Marconi, M Zaccarelli, MP Trotta, R Bellagamba, P Narciso, A Antinori, T Lengauer, CF Perno, F Ceccherini
Title: [*Dynamics of NRTI resistance mutations during therapy interruption*](#)
Journal: AIDS Research and Human Retroviruses, Vol. 25(1): 57-64, January 2009

Authors: S Aquaro, R D'Arrigo, V Svicher, G Di Perri, S Lo Caputo, U Visco-Comandini, **M Santoro**, A Bertoli, F Mazzotta, S Bonora, V Tozzi, R Bellagamba, M Zaccarelli, P Narciso, A Antinori, CF Perno
Title: [Specific mutations in HIV-1 gp41 are associated with immunological success in HIV-1-infected patients receiving enfuvirtide treatment](#)
Journal: Journal of Antimicrobial Chemotherapy, vol. 58 (4):714-722, August 2006

Technical Papers

Authors: G. Jona Lasinio, **M. Santoro**, S. Zuzzi
Title: *Mortalita' per cause nel comune di Ciampino e comuni limitrofi negli anni 1987-2002*
Date: May 2007 (Printed by Ciampino Municipality)

Authors: S. Zuzzi, **M. Santoro**, G. Jona-Lasinio
Title: *Valutazione del rischio ambientale nel territorio del comune di Ciampino in relazione all'inquinamento atmosferico*
Date: January 2007 (Printed by Ciampino Municipality)

Other Activites President of ScienzaDiffusa, cultural association for science divulgation.
www.scienzadiffusa.it
Owner and manager of Bed and Breakfast Campani Slow
(airbnb.it/rooms/1698263?s=E1e1)