

SARA NASSO

Born the 6th August 1983 in Italy.

Hometown: Padova

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EDUCATION

Ph.D. student at the Department of Information Engineering , University of Padova, Bioengineering group, January 2008 - January 2011.

Master's degree, Bioengineering (110/110 cum Laude), University of Padova, October 2007. Thesis: LC-MS data analysis for protein quantification (Institute for Genomics and Bioinformatics, Graz University of Technology, Austria).

Bachelor's degree, Information Engineering (103/110), University of Padova, 2005. Thesis: Comparison between 2 methods of vessel tracking for retinal images.

High school, Scientific program (100/100), "Giorgio Dal Piaz", Feltre (BL).

RESEARCH

Interests

My main interest is the development and application of statistical and machine learning methods and signal elaboration for the analysis of proteomics data, especially the quantification of LC-MS/MS data. I am also interested in more general bioinformatics issues related to large-scale, biologically-derived data (i.e., computational biology).

Publications

Journal paper

Sara Nasso, Francesco Silvestri, Francesco Tisiot, Barbara Di Camillo, Andrea Pietracaprina, Gianna Maria Toffolo, *An optimized data structure for high-throughput 3D proteomics data: mzRTree*, Journal of Proteomics, Volume 73, Issue 6, Clinical Proteomics (3rd EuPA Meeting), 18 April 2010, Pages 1176-1182, ISSN 1874-3919, DOI: 10.1016/j.jprot.2010.02.006.

Abstract

Talk

Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A 3D Quantification Software For LC-MS Labeled Profile Data*, 2010 ItPA, Firenze, 9-12 June 2010.

Nasso S., Silvestri F., Tisiot F., Di Camillo B., Pietracaprina A., Toffolo G., *An Optimized Data Structure For High Throughput 3D Proteomics Data: mzRTree*, BITS2010, Bari, 14-16 April 2010.

Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A Matlab software for easy handling and 3D quantification of LC-MS labeled profile data*, 2009 Swiss Proteomics Society Congress, Zurich, 2-4 December 2009.

Nasso S., Tisiot F., Di Camillo B., Pietracaprina A., Toffolo G., *Bioinformatics tools for high-throughput 3D proteomics data*, 1° Workshop GNB su Data Mining e Knowledge Discovery in Bioingegneria, Pavia, 20 February 2009.

Poster

Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A 3D Quantification Software For LC-MS Labeled Profile Data*, 2010 HUPO, Sydney, 19-23 September 2010.

Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A 3D Quantification Software For LC-MS Labeled Profile Data*, 2010 ESS, Bressanone, 1-8 August 2010

Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A Matlab software for easy handling and 3D quantification of LC-MS labeled profile data*, 2009 Swiss Proteomics Society Congress, Zurich, 2-4 December 2009.

Nasso S., Tisiot F., Di Camillo B., Pietracaprina A., Toffolo G., *An Optimized Data Structure For High Throughput 3D Proteomics Data: mzRTree*, 3rd EuPa Congress, Stockholm, 14-17 June 2009.

Ongoing research

Journal paper in preparation: Nasso S., Hartler J., Di Camillo B., Toffolo G., *3DSpectra: A 3D Quantification Software For LC-MS Labeled Profile Data*.

Further development of mzRTree, working with international collaborators from the Proteomics Standards Initiative.

AWARDS

HUPO2010 travel grant (450AUD).

Bioinformatics Italian Society travel grant (300€).

PhD fellowship, University of Padova (42.000€).

Several merit awards received yearly since the beginning of the High School until the end of the University.

TEACHING

Tutor junior (Faculty of Engineering, University of Padova), Winter 2010. Duties includes conducting weekly two hours tutorials, helping students in several tasks.

Teaching Assistant for Biological Signals Elaboration (Department of Information Engineering, University of Padova), Winter 2010, Spring 2010. Duties included conducting weekly two hours laboratory tutorials, helping students in the computer lab and marking assignments/exams.

Teaching Assistant for Java Basics (Department of Information Engineering, University of Padova), Fall 2010, Winter 2010. Duties included conducting weekly 4 hours laboratory tutorials, helping students in the computer lab.

Teaching Assistant for Biological Signals Elaboration (Department of Information Engineering, University of Padova), Winter 2009, Spring 2009. Duties included conducting weekly two hours laboratory tutorials and helping students in the computer lab.

Computational Proteomics 2 hours seminar for the Genomics Engineering course (Department of Information Engineering, University of Padova), Winter 2008.

SCHOOLS & COURSES

September 14-17, 2010: "Proteomic Informatics course", HUPO pre-congress course, Sydney, NSW, Australia.

August 1-8, 2010: "Proteomic Basics - High-Throughput Data Analysis and Statistics", European Summer School, Bressanone (BZ), Italy.

December 2, 2009: "Statistics analysis for proteomics data", SPS pre-congress course, Zurich, Swiss.

September 7-11, 2009: "Neuroscience Bioengineering". XXVIII Annual National School of Bioengineering, Bressanone (BZ), Italy.

June 14, 2009: "Commercial Bioinformatics resources: The theory behind and their applications", EuPa pre-congress course, Stockholm, Sweden.

September 15-19, 2008: "Wearable systems for human health and protection". XXVII Annual National School of Bioengineering, Bressanone (BZ), Italy.

September 25-28, 2007: "Computational Genomics and Proteomics". XXVI Annual National School of Bioengineering, Bressanone (BZ), Italy.

RELEVANT TECHNICAL SKILLS

Expert Matlab user.
Experience with Java.
Basic SQL and R.

LANGUAGES

Fluent written and spoken English.
Basic French and German.

PERSONAL SKILLS AND COMPETENCES

- Good teamwork skills;
- Open minded to new ideas and views of others;
- Good written and verbal communication skills both in Italian and English;
- Strong attitude to meet deadlines and achieve professional goals;
- Results-driven approach and positive problem-solving attitude;
- Excellent ability to analyze data, identifying issues, relevant information and relationships;
- Great attention to details accomplishing tasks through a concern for all areas involved.

OTHER EXPERIENCES

Training (14th July – 15th August 2002) at CHI Energy¹ (Enel North America), Montreal (Canada):

- Anemometer data analysis;
- Presentation on a feasibility study of a wind turbines farm in Newfoundland.

Use of personal data is allowed according to Italian law 196/2003 art. 7.