

# GIUSEPPE SERAZZI

Curriculum Vitae  
November 2024

## Education

Laurea Degree (Master) in *Applied Mathematics*, *University of Pavia*, Italy, 1969

*MIT Boston*, Special Program in “*Advanced Software Engineering*”, prof. S.Madnick-J.Donovan, Aug.1975

## Teaching activities

- *Politecnico di Milano*, professor *emeritus*, 2015
- *Politecnico di Milano*, Comp. Science Dept., Milan, *full professor*, 1991- 2017 (retired Nov. 2013)
- *Università Statale di Milano*, Computer Science Dept., *full professor*, 1987 - 1991
- *Università di Pavia*, Department of Mathematics, *Associate professor*, 1978 - 1987
- *Università della Svizzera Italiana, USI*, Faculty of Communication Science, Lugano, Switzerland, professor of “Internet technologies for Information Systems”, 1997 - 2010
- *Università della Svizzera Italiana*, School on “Entrepreneurship for high-tech start-ups”, Lugano, Switzerland, *co-director* with prof.M.Malek, Humboldt Universitat, Berlin, Oct.2003, Sept.2004

## Scientific activities

From 1978 until 1985 he was *researcher* at the “Numerical Analysis Institute” of the National Research Council CNR, Pavia. On 8/10/1987 he became *Full professor* of Computer Science (ING/INF05).

His research interests include performance evaluation of computing infrastructures (web and storage servers, parallel systems, clouds), modelling techniques, workload characterization, simulative and analytic tools for capacity planning, algorithms for bottlenecks detection and energy optimization in very large computing centers.

He has published over *180 papers*, 15 of these being *books* (amongst others *Measurement and Tuning of Computer Systems* - Prentice Hall 1983, *E-business start-up* - McGraw-Hill 2001, *Performance Engineering – Learning through Applications Using JMT* - Springer 2023).

In the 90’s he was the *initiator*, and still is one of the *coordinators*, of the open-source *JMT-Java Modelling Tools* <http://jmt.sourceforge.net> for performance engineering of computing infrastructures, *95K+ downloads* to date. On Nov.2013, Imperial College London (prof. G. Casale) joined the coordination of the project.

His research *activities* have been in *cooperation* with the following universities and research labs (see the *joint publications with researchers of all these institutions*):

- University of California Berkeley, Computer Science Dept, CA, USA (prof. D.Ferrari)
- Université René Descartes, Paris (prof. E.Gelenbe)
- Technische Universität, Institut für Informationsverarbeitung, Vienna (prof. G.Haring)
- University of Maryland, College Park, Computer Science Dept, USA (prof. S.Tripathi)
- University of California, Computer Science Dept., Davis, CA, USA (prof. D. Ghosal)
- Vanderbilt University, Nashville, Computer Science Dept, USA (prof. L.Dowdy)
- University of Toronto, Computer Science Dept, Toronto, Canada (prof. K.Sevcik)
- Carleton University, Computer Science Dept, Ottawa, Canada (prof. J.Rolia)
- IBM T.J.Watson Research Center, Yorktown Heights, NY, USA (Dr. M.Squillante)
- College of William and Mary, Dept. of Computer Science, Williamsburg, VA, USA (prof. E.Smirni)
- Univ. of Rochester, Simon Business School, Rochester, USA (prof. P.Schweitzer)
- University College London, Dept. of Computer Science, London (prof. P.Treleaven)
- University of California Los Angeles, Computer Science Dept, CA, USA (prof. R.R.Muntz)
- IBM Zurich Research Lab., Zurich, Switzerland (Dr. L.Chen)
- USI Università della Svizzera Italiana, Lugano, Switzerland (prof. W.Binder)
- Imperial College London, Computer Science Dept., London (prof. G.Casale)
- Università di Milano (prof.E.Rosti), Pavia (proff.M.Calzarossa, V.Comincioli), Pisa (prof.M.Vanneschi), Torino (prof.G.Balbo).

He has held *Visiting Faculty* positions at: EECS Dept. Univ. of California, Berkeley, USA (1979, 1981) – INRIA, Rocquencourt, France (1982) – Univ. of Maryland, College Park, USA (1987) – and Vanderbilt Univ., Nashville, USA (1990, 1992).

Giuseppe has *supervised* 9 Ph.D students, five of them are now professors in academia (Imperial College London, Politecnico di Milano, Milan State University, Universitat Politecnica de Valencia), one is researcher of the National Research Council Pisa, and two are startupper. He *tutored* 200+ M.Sc Theses.

He held many *seminars* at foreign universities and research labs, including: Imperial College London, ETH Zurich, U.C.Davis, IBM Zurich Res.Lab, U.C. Los Angeles, Vanderbilt Univ., Univ. College London, Univ.of Toronto Canada, Carleton Univ. Canada, INRIA France, IBM T.J.Watson Res.Center USA, Univ.of Maryland College Park, Oak Ridge National Lab., Univ.of Rochester USA, AT&T Bell Labs Holmdel, Univ.Cal. Berkeley, Int.I CS Institute Berkeley, Univ.Saarlandes Schloss Dagstuhl Germany.

He *contributed* to major international journals and conferences on performance evaluation of computer infrastructures and high performance computing.

He was on the *editorial board* of “Performance Evaluation Journal” (Elsevier, 1993--2000) and La Rivista di Informatica AICA (1989--2000), and on 2009 he was *Guest Editor* (with Casale, Muntz) of the Special Issue on “Tools for Computer Systems Perf. Modeling and Reliability Analysis” of *ACM Performance Evaluation Review* .

He has been *Conference Chairman* of International Conferences, including: Int.I Conf. on High-Performance Computing and Networking HPCN95 Europe 1995, Int.I Conf. on Modelling Techniques and Tools for Computer Perf. Evaluation 1991, 1st Int.I Workshop on Workload Characterization of Computer Systems and Networks 1985, and *Programme Committee* member of others organised by IEEE, IFIP, ACM and other associations.

Giuseppe was *responsible* for research units in many European projects (including “IMSE, the Integrated Modelling Support Environment” and the FP7 project “Worldwide Observatory of Malicious Behaviors and Attack Threats”) and Italian CNR and MURST projects (including the “Massively Parallel Computer Systems”). He was the national *coordinator* of the MIUR project 2001 “High Quality Web Systems”.

From 2014 to 2018 he coordinated the development of *PoliCloud*, a research-oriented *cloud* infrastructure of the Politecnico di Milano with 300+ servers.

## Professional Activities

- 1961–1978: employee at *Olivetti SpA*.
  - 1961–1967: involved in the development of hardware equipments including the “*reader of CMC7 magnetic characters*” for the sorter of bank checks, the “*Auditronic 770*”, and the “*P101*”, the *first prototype of the PC*, coordinated by Ing. Perotto, in the Olivetti Labs at S.Giuliano and Pregnana Milanese.
  - 1969–1978: worked for Olivetti at *Syntax SpA* (one of the first software companies in Italy). He was involved in several software projects including a compiler for the minicomputer E900 and the operating system for a real time system Vector 5000.
  - 1972–1978: He started, and managed, the *packages department* at *Syntax*, for the distribution of software packages developed by American companies for IBM mainframes (performance evaluation, DBMS, ...).
  - 1976: He was awarded the title of *Olivetti manager*.
- 2000–2006: He was the founder and the manager of the *Acceleratore d’Impresa*, the incubator of the Politecnico di Milano for high-tech start-ups. 29 high-tech start-ups were created in this period.
- 2004–2010: *Rector’s Delegate* for the Acceleratore d’impresa.
- 2007: Member of the *Experts Panel* for the mid-term evaluation of the National Incubation Program (NIP2) of the Swedish Governmental Agency (4 members, from France, Israel, Italy, UK)
- 2004–2018: member of *CP Start-Up*, Experts Commission for the evaluation of startups, USI, Switzerland

## Board Member

- 1998–2000 *Scientific Council* of the Institute of Applied Mathematics (IMA) of CNR, Genova, Italy
- 2004–2008 *Incubator Forum Gate 2 Growth Initiative*, a European Network of technology incubators linked to research institutes and universities, European Commission – DG Enterprise – Innovation/SMEs program
- 2005–2011 *President* of AIU, the Italian *Association of the University Incubators*
- 2007–2011 *Foundation of the Politecnico di Milano*
- 2007–2011 *Associazione Idee e Imprese Innovative AI3*, association of Milan and Turin Polytechnics and public institutions to support incubators and innovative startups

Member of IFIP W.G. 7.3 “Computer Performance Modeling” (*elected* in 1993), *honourable member* of the CMG Computer Measurement Group (1995). senior member of IEEE, member Rotary Club Milano (2002-2014).