

Roberta Ramponi

CURRICULUM VITAE ET STUDIORUM

Personal Information

Date of birth: 03 August 1954
Nationality: Italian
Address (home): Corso Lodi 65
20139 Milano
Tel. (work): +39 02 2399 6150
Mobile: +39 366 5885799
Skype: roberta.ramponi
e-mail: roberta.ramponi@fisi.polimi.it

Education and training

1973 High School Diploma cum laude at the “Liceo Scientifico Statale Leonardo da Vinci”, Milano
1977 Degree cum laude in Physics at the University of Milano, Milano, Italy
1979 Specialization Diploma cum laude in Medical Physics at the University of Milano, Milano, Italy

Languages

Mother tongue: Italian
Other languages: English (reading skills: excellent; writing skills: good; verbal skills: excellent)
French (reading skills: excellent; writing skills: good; verbal skills: excellent)

Work experience

16/07/1977-31/12/1979 (part-time since 01/08/1979)

Centro Diagnostico Italiano (via Saint Bon 20, Milano): employee

Activity: Quality control; medical statistics; epidemiology; medical applications of information technology

19/03/1979-18/01/1980

Hospital “San Carlo Borromeo”, Institute of Radiology, Milano: Rank Xerox fellowship assigned by S.I.R.M.N., Italian Society of Radiology and Nuclear Medicine

Activity: research on the physical aspects of xeroradiography

01/08/1979-31/01/1980

S.I.T.T.I. (via Desiderio 24, Milano): technical consultant

Activity: development of microprocessor based devices for air traffic control and secure data communications

16/02/1980-31/10/1992

C.E.Q.S.E.-C.N.R. (Center for Quantum Electronics and Electronic Instrumentation of the National Research Council, piazza Leonardo da Vinci 32, Milano): researcher

Activity: research in quantum electronics and laser applications to biology and medicine; support teaching activity in Quantum Electronics, Optics, and Physics

01/11/1992-29/12/2002

Politecnico di Milano, Department of Physics (piazza Leonardo da Vinci 32, Milano): associate professor of Physics, Faculty of Engineering

Activity: teaching Physics (Mechanics, Thermodynamics, Electromagnetism); research in nonlinear optics and integrated optics

30/12/2002-15/11/2013

Politecnico di Milano, Department of Physics (piazza Leonardo da Vinci 32, Milano): full professor of Physics, 2nd School of Engineering (System Engineering)

Activity: teaching Physics and Micro and Nano-Optics; research in integrated optics, photonics, quantum optics, optofluidics, and related applications

Since 16/11/2013

CNR-IFN (Institute of Photonics and Nanotechnology) (piazza Leonardo da Vinci 32, Milano): Director

Activity: Director of the institute; research in integrated optics, photonics, quantum optics, optofluidics, and related applications

Organization and coordination activities (national)

- a. 2007-2012 Chair of the bachelor-of-science and master-of-science degrees in Physics Engineering at the Politecnico di Milano
- b. Member of the MIUR reviewer panel (Albo revisori)
- c. 2002-2010 Member of the experts' panel of the Technology Transfer Office of the Politecnico di Milano, evaluating patent proposals

Committees, organization and coordination activities (international)

European Optical Society (EOS, www.myeos.org)

2004-2006 Vice-President

2006-2008 President

2008-2010 Past-President

2010-2014 EU representative, member of the Executive Committee and of the Board of the Directors

International Commission for Optics (ICO, www.e-ico.org)

2008-2011 Vice-President (appointed by the EOS)

2011-2014 Vice-President (elected)

European Technology Platform PHOTONICS21 (www.photonics21.org)

Since 2010: Chair of WorkGroup 7 (Photonics Research, Education & Training), member of the Executive Board and of the Board of the Stakeholders

Since 2012: MIUR (Italian Ministry for Education, University and Research) representative in the Mirror Group of Photonics²¹

TSOSA (Trieste System Optical Science and Applications), international committee supporting education and research activities in the field of Optics at the ICTP (The Abdus Salam International Centre for Theoretical Physics)

Since 2007: member

2013, 4-15 February: Co-director of the Winter College on Optics “Trends in Laser Development and Multidisciplinary Applications to Science and Industry” (www.ictp.it/scientific-calendar.aspx)

ADOPT (Linné Center in Advanced Optics and Photonics), KTH, Stockholm

Since 2010: member of the International Scientific Advisory Board

ECOP (European Centres for Outreach in Photonics), network promoting outreach activities in Photonics, established in 2011 by Institute of Photonics Sciences - ICFO (Castelldefels, Barcelona, Spain), Vrije Universiteit (Brussels, Belgium), Max Born Institute (Berlin, Germany), National University of Ireland Galway (Galway, Ireland), Institut d’Optique (Palaiseau, France), Imperial College (London, UK), and Politecnico di Milano (Milan, Italy)

Since 2011: member of the management board

EC – Photonics Unit

2007: Member of the panel for the Evaluation of Proposals submitted to Call ICT-2007.3.5 Photonic Components & Subsystems

Editorial activity

She acts as referee for the most important international journals of optics, photonics and applied physics (Optics Letters, JOSA B, Journal of Optics, Optics Express, Journal of Applied Physics, Nature Communications, etc.)

Since 2012: Associate Editor of IEEE Photonics Journal (www.photonicsjournal.org)

Scientific activity

She is co-author of more than one hundred peer-reviewed papers in international journals and presented several invited communications at international conferences devoted to photonics and applications to material science (SPIE Photonics West, SPIE Photonics Europe, EOS Topical Meeting on Optical Microsystems, ROMOPTO, ICTON, IEEE Photonics Society Annual Meeting, etc.). She has been involved in several national and international projects, with leading roles. She has been part of the scientific committee of different international conferences; in particular, she has been co-chair of the First Mediterranean Photonics Conference (Ischia, Naples, 25-28 June 2008) and general chair of the EOS Annual Meeting 2008 (Paris-Nord Villepinte, 29 September-2 October 2008). She is the chair of the research line on photonic devices of the Department of Physics of the Politecnico di Milano.

Her research has covered a wide range of activities in the fields of quantum electronics, optoelectronics and photonics. During the first years she worked on the development of laser-based instrumentation for biomedicine, mainly for diagnostic applications; later on, her research activity has focused on nonlinear optics, integrated optics, and related applications. In particular she has developed innovative techniques for the fabrication of waveguides in nonlinear crystals, passive and active glasses and for the accurate characterization of such waveguides; moreover she has studied the design and realization of all-optical devices for applications to sensors and optical communications. More recently the research activity has focussed on the development and realization of integrated micro-optofluidic devices, by means of direct writing with femtosecond laser pulses for the fabrication of optical waveguides, and of the same technique followed by chemical etching for microchannels. Femtosecond laser writing has also been used for the implementation of integrated photonic quantum circuits.

Milano, 20 February 2015

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