


## PERSONAL INFORMATION

## Antonio Mecozzi

 [Redacted] [Redacted]  [Redacted] [antonio.mecozzi@univaq.it](mailto:antonio.mecozzi@univaq.it) <https://www.scopus.com/authid/detail.uri?authorId=7005581758><https://publons.com/researcher/2791897/antonio-mecozzi/><http://scholar.google.it/citations?user=EziOhpcAAAAJ&hl=it> [ORCID 0000-0001-8730-5699](https://orcid.org/0000-0001-8730-5699)

Gender Male | Date of birth [Redacted] | Nationality [Redacted]

## WORK EXPERIENCE

1 October 2021 – 31 September  
2022

## Prorector

University of L'Aquila

Deputy Rector of the University of L'Aquila

[Business or sector](#) Academic1 November 2015 – 31 October  
2021

## Director of the PhD programs in Physics and Chemistry

Department of Physical and Chemical Sciences, University of L'Aquila, L'Aquila (Italy)

[Business or sector](#) Academic

1 July 2012 – 17 May 2018

## Director of the Department of Physical and Chemical Sciences

Department head, Department of Physical and Chemical Sciences, University of L'Aquila

[Business or sector](#) Academic

1 September 2001 – Present

## Professor

Professor of Theoretical Physics of Matter, University of L'Aquila, L'Aquila (Italy)

Faculty of Engineering until 30 June 2012, Department of Physical and Chemical Sciences from 1 July 2012 to present

[Business or sector](#) Academic1 November 1999 – 31 August  
2001

## Associate Professor

Associate Professor of Theoretical Physics of Matter, University of L'Aquila, L'Aquila (Italy)

Faculty of Engineering

[Business or sector](#) Academic

1 August 1993 – 31 October 1999

## Senior Research Scientist

Fondazione Ugo Bordoni, Roma (Italy)

Research scientist in the Optical Communication Division of the Fondazione Ugo Bordoni. Research topics: optics

[Business or sector](#) Research

1 December 1986 – 31 July 1993

## Research Scientist

Fondazione Ugo Bordoni, Roma (Italy)

Senior research scientist in the Optical Communication Division of the Fondazione Ugo Bordononi. Research topics: optics

**Business or sector** Research

1 November 1985 – 31 October  
1986

## Internship

Fondazione Ugo Bordoni, Roma (Italy)

– Research internship. Topic: quantum optics and nonlinear optics

**Business or sector** Research

26 April 1983 – 26 July 1985

## Military service

Lieutenant of Artillery, School of Artillery, Bracciano (Italy)

Teaching ballistic to cadets

**Business or sector** Military

## EDUCATION AND TRAINING

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February 1991 – June 1992

## Post-doc

Electrical Engineering and Computer Science Department, and Research Laboratory of Electronics, Massachusetts Institute of Technology, Boston MA (USA)

Post-doc in the group of Prof. Hermann Haus, performing studies on optical soliton transmission.

1 November 1978 – 28 November  
1985

## Laurea degree - Thesis Title: “Stochastic models of chemical reactive systems: fluctuations and stability of thermodynamic systems far from equilibrium”

Sapienza University of Rome, Roma (Italy)

Laurea degree in Chemical Engineering, thesis advisor Prof. Ferdinando De Pasquale, Physics Department. Title earned: Doctor in Chemical Engineering

## RESEARCH

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### Main research topics

My research interest are mainly in the field of optics. In particular, I have been interested in the following topics:

- Geophysical sensing using undersea optical cables.
- Theory of linear and nonlinear transmission in few mode fibers
- Theory of polarization dependent loss
- Theory of the information capacity of optical transmission systems
- Theory of highly dispersed short pulse transmission
- Theory of polarization-mode dispersion in fiber transmission systems
- Theory of optical nonlinearities in semiconductor optical amplifiers
- Quantum theory of squeezing of optical solitons
- Noise theory of non-return-to-zero long-haul optical transmission
- Theory of soliton propagation in fiber and soliton transmission control
- Noise theory of passively mode-locked lasers
- Four wave mixing in semiconductor lasers
- Injection locking of semiconductor lasers
- Nonlinear Optics in fibers
- Erbium doped fiber amplifiers
- Stochastic theory of the transient in mono- and multi-mode semiconductor lasers
- Phase noise in semiconductor lasers
- Quantum Optics, and in particular, theory of the interference between macroscopic quantum states and the theory of squeezed states
- Stochastic theory of the transient of chemical reactions

**PERSONAL SKILLS**

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills Extensive experience in delivering conference talks, many invited, and in teaching University courses.

Organisational / managerial skills Experience in managing a Department with about 60 Professors

Computer skills Microsoft Office, Matlab

**COMMITTEES**

Program committees of conferences of the Optical Society (OSA, now Optica)

- OFC committee S3: Transmission Systems, Member 03/11/2022 – 03/09/2023
- COTA 4: Fundamental Science and Technology, Member 01/23/2006 – 07/01/2006
- Frontiers in Optics Program Committee, Member 10/04/2002 – 10/14/2004
- Optical Fiber Communications (OFC) Program Committee, Member 03/23/2002 – 03/28/2003
- Optical Amplifiers and Their Applications Program Committee, Vancouver, Chair July 14–17, 2002
- Optical Amplifiers and Their Applications Program Committee, Stresa, Program Chair, July 1-4, 2001
- Optical Amplifiers and Their Applications, Quebec City, Quebec, Canada, Program Committee Chair, July 9-12, 2000
- Nonlinear Photonics Technical Program Committee, Member, 04/01/1997 – 05/31/1998

Program committees of other conferences

- Program Chair of the 44th European Conference of Optical Communications (ECOC) 2018, 23/9/2018 – 27/9/2018
- Program committee member of the European Conference of Optical Communications (ECOC) 2013, 2014
- International Advisory board, 4th International Conference on Quantum Communications Measurement and Computing, Evanston, Illinois, USA, August 22-27 1999.
- International Advisory board, 5th International Conference on Quantum Communications Measurement and Computing, Capri, July 2000.

Committees of the IEEE and the Optical Society (OSA, now Optica)

- Fellow Members Committee, Member 01/01/2021 – 12/31/2022
- Photonics Society Joint Awards Committee, member, 2019, 2020 and 2021
- Optics Letters Review Committee, Member 07/01/2006 – 06/30/2008
- John Tyndall award (jointly sponsored by IEEE and OSA) review committee, member, 2008 – 2009
- Technical Group Leadership, Photonics and Opto-Electronics Division, PA Optical Amplifiers, Chair 10/04/2002 – 10/14/2004

**EDITORSHIPS**

Editorship of Journals published by the Optical Society (OSA, now Optica)

- Optics Letters, Topical Editor, 03/01/1996 – 12/31/2001 (the first European Topical Editor of Optics Letters)
- Optics Letters Editors, Vice Chair 01/01/2008 – 12/31/2013
- Optics Express Editors, Associate Editor, 08/01/2014 – 07/31/2020
- Optica Editors, Associate Editor, 08/01/2020 – present

Editorship of IEEE Journals – Photonics Technology Letters, Associate Editor, 1/4/2002 1/6/2007

**FUNDINGS**

- Projects**
- Principal Investigator in project MuQuAKE (Multi-core Quantum key Exchanger). The partners are the University of L'Aquila and Denmark Technical University. Funding: OpenQKD, € 66,000, Nov 2020 – May 2022.
  - PI of the national project PRIN 2017 FIRST “Fiber Infrastructure for Research on Space-Division Multiplexed Transmission”: Funding to UnivAQ € 150,000. Partners: University of L'Aquila, Polytechnic of Turin, Polytechnic of Milan, Scuola Superiore Sant'Anna of Pisa, University of Padova. Total funding € 870,000.
  - Co-Principal Investigator in the US ARMY research project W911NF1820155 “Entanglement distribution in fiber-optic quantum networks”: Funding to UnivAQ \$ 35,000, 13/09/2018 – 12/09/2019. Partners: University of L'Aquila, Army Research Laboratory at Adelphi, MD.
  - Head of the research unit of L'Aquila in the DARPA project W911NF-14-1-0249 “Investigation of On-Chip Phase-Sensitive Amplifiers”: Funding to UnivAQ \$ 75,000, 06/01/2014 – 11/30/2015. Partners: University of L'Aquila, University of California at Santa Barbara, University of Texas at Arlington.
  - Head of the research unit of L'Aquila in the national project PRIN 2010/2011 RAOD-NGN “Optical Frequency/Wavelength Division Multiple Access Techniques For Next Generation Networks”: Funding to UnivAQ € 100,000, 02/01/2013 – 01/31/2016. Partners: University of L'Aquila, University of Roma Tor Vergata, University of Roma Tre, Polytechnic of Turin, Polytechnic of Milan, Scuola Superiore Sant'Anna of Pisa, University of Padova, Fondazione Ugo Bordoni.
  - Head of the research unit of L'Aquila in the Greentouch research project funded by Bell Labs Alcatel Lucent (Holmdel, NJ): Funding to UnivAQ \$ 110,000 from 2011 to 2013. Participants: University of L'Aquila, Tel Aviv University.
  - Head of the research unit of L'Aquila in the Virtual University Research Initiative (VURI) project funded by AT&T Labs (Middletown, NJ): Funding to UnivAQ \$ 75,000 from 2008 to 2011.
  - Head of the research unit of L'Aquila in the national project PRIN 2005 “Transmission System for Optical Chaotic Cryptography”: Funding to UnivAQ € 20,000, 01/01/2006 – 12/31/2007. Partners: University of L'Aquila, University of Padova, University of Pavia

**AWARDS AND HONORS**

- Fellowships**
- Fellow of the IEEE. Motivation: “for contributions to the theory of nonlinear transmission in optical fibers.” 17/11/2002
  - Fellow of the Optical Society (OSA, now Optica) Motivation: “for his significant contributions in the theory of long-haul soliton transmission control and wavelength conversion using semiconductor optical amplifiers.” 4/2/1999
  - NATO Fellowship, February 1991 – December 1991

**CITATION METRICS**

- Scopus** – 10,414 citations, H-index 54, <https://www.scopus.com/authid/detail.uri?authorId=7005581758>
- Google Scholar** – 13,744 citations, H-index 62, <https://scholar.google.it/citations?user=Ezi0hpcAAAAJ&hl=en>

**Declaration** According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.