

Curriculum vitae of CRISTIAN ANTONELLI

EDUCATION

- **2006:** Doctor of Science in Electrical and Information Engineering, University of L'Aquila, Italy. Thesis: *"Polarization Mode Dispersion in optical fibers: Characterization and Mitigation."*
- **2002:** Master of Science (laurea degree) in Electronics Engineering, magna cum laude, University of L'Aquila. Major in Optics and Telecommunications. Thesis *"Capacity of optical communication systems with laser amplifiers."*

PROFESSIONAL QUALIFICATION

- **2020:** Cristian Antonelli received the national qualification to the role of Full Professor in Physics that is required by law for the eligibility to the position of Full Professor in the Italian Academia.
- **2018:** Cristian Antonelli received the national qualification to the role of Full Professor in Electromagnetic Fields that is required by law for the eligibility to the position of Full Professor in the Italian Academia.
- **2014:** Cristian Antonelli received the national qualification to the role of Associate Professor that is required by law for the eligibility to the position of Associate Professor in the Italian Academia.
- **2005:** Registered Engineer qualification in 2005 (grade: 100/100).

PROFESSIONAL EXPERIENCE

- **From December 2019:** Associate Professor of Electromagnetic Fields at the University of L'Aquila.
- **2014 - 2019:** Assistant Professor at the Department of Physical and Chemical Sciences of the University of L'Aquila.
- **2009 – 2014:** Senior research associate at the University of L'Aquila. Joint support from the Italian Ministry of University and Research, Bell Labs-Alcatel Lucent (Holmdel, New Jersey) and AT&T Labs Research (Middleton, New Jersey). Subjects: spatially multiplexed fiber-optic transmissions, polarization effects in classical and quantum fiber-optic communications.
- **2007 – 2009:** Research associate at the Inter-university National Consortium for physical Sciences of Matter (CNISM). Subject: fiber-optic quantum-key distribution systems.
- **2006 – 2007:** Research associate in the University of L'Aquila. Subject: Optical Chaotic Cryptography.
- **January 2006 – June 2006:** Post-doctoral fellow at the Research Laboratory of Electronics, Massachusetts Institute of Technology (MIT). Subject: modelling of passively mode-locked fiber lasers.
- **August 2005 – September 2005:** Visiting researcher at the Department of Optical System Research of AT&T Labs Research (Middleton, New Jersey). Subject: Time dynamics of polarization-mode dispersion in installed fiber-optic systems.
- **August 2004 – October 2004:** Visiting researcher at the Department of Optical System Research of AT&T Labs Research (Middleton, New Jersey). Subject: polarization mode dispersion-induced impairments in fiber optic links.
- **2002 – 2005:** PhD program in Electrical and Information Engineering at the University of L'Aquila. The PhD scholarship sponsored by Telecom Italia Lab. Thesis: *"Polarization Mode Dispersion in optical fibers: Characterization and Mitigation."*

MAJOR INTERNATIONAL CONFERENCE COMMITTEES AND WORKSHOP ORGANIZATION

- TPC member, sub-committee D4 "Fiber and propagation physics," of "Optical Fiber Communications Conference 2021" (OFC 2022), San Diego (California), March 06 – 10, 2022.
- Sub-committee CHAIR of SC6 "Theory of Optical Communications," of "European Conference on Optical Communications 2021" (ECOC 2021), Bordeaux (France), September 13-16, 2021.
- TPC member, sub-committee D4 "Fiber and propagation physics," of "Optical Fiber Communications Conference 2021" (OFC 2021), San Francisco (California), March 28 – April 1, 2021.
- Sub-committee CHAIR of SC6 "Theory of Optical Communications," of "European Conference on Optical Communications 2020" (ECOC 2020), Brussels (Belgium), September 20-24, 2020.

- TPC member, sub-committee D4 “Fiber and propagation physics,” of “Optical Fiber Communications Conference 2020” (OFC 2020), San Diego (California), March 8-12, 2020.
- TPC member, sub-committee O2 “Transmission Systems and Subsystems,” 24th OptoElectronics and Communications Conference (OECC 2019), Fukuoka (Japan), July 7-11, 2019.
- Workshop co-organizer: “*Will Advanced Direct-Detection Systems ever be the solution of choice for metro, access, and data center applications?*,” at “Optical Fiber Communications Conference 2019” (OFC 2019), San Diego (California), March 3-7, 2019.
- TPC member, sub-committee SC3 “Digital Signal Handling Techniques for Optical Communication Systems,” of “European Conference on Optical Communications 2018” (ECOC 2018), Rome, Italy, September 23-27, 2018.
- Workshop co-organizer: “*Requirements and opportunities of coherent DSP within the coming decade,*” at “European Conference on Optical Communications 2018” (ECOC 2018), Rome, Italy, September 23-27, 2018.
- TPC member, sub-committee S5 “Digital Transmission Systems,” of “Optical Fiber Communications Conference 2018” (OFC 2018), San Diego (California), March 11-15, 2018.
- Workshop co-organizer: “*When will we need to scale the fiber capacity? What is the most realistic approach?*,” at “Optical Fiber Communications Conference 2018” (OFC 2018), San Diego (California), March 11-15, 2018.
- Sub-committee CHAIR of S5 “Digital Transmission Systems,” of “Optical Fiber Communications Conference 2017” (OFC 2017), Los Angeles (California), March 19 – 23, 2017.
- Workshop co-organizer: “*Making the Case for SDM in 2027,*” at “Optical Fiber Communications Conference 2017” (OFC 2017), Los Angeles (California), March 19 – 23, 2017.
- TPC member, sub-committee S5 “Digital Transmission Systems,” of “Optical Fiber Communications Conference 2016” (OFC 2016), Anaheim (California), March 20 – 24, 2016.
- TPC member, sub-committee S5 “Digital Transmission Systems,” of “Optical Fiber Communications Conference 2015” (OFC 2015), Los Angeles (California), Marh 22 – 26, 2015.
- Workshop co-organizer: “*Will the Optimum Space-division Multiplexing System and Fiber Be Determined by Fiber Nonlinearities?*” at “Optical Fiber Communications Conference 2014” (OFC 2014), San Francisco (California), March 9 – 14, 2014.
- TPC member, sub-committee “Lightwave Communications and Optical Networks” of “Conference on Lasers and Electro-Optics 2013” (CLEO 2013), San Jose (California), June 8 – 13, 2013.
- TPC member, sub-committee “Lightwave Communications and Optical Networks” per “Conference on Lasers and Electro-Optics 2012” (CLEO 2012), San Jose (California), March 6 – 11, 2012.
- TPC member, sub-committee “Lightwave Communications and Optical Networks” of “Conference on Lasers and Electro-Optics 2011” (CLEO 2011), Baltimore (Mariland), May 1 – 6, 2011.

NATIONAL CONFERENCE COMMITTEES

- TPC member of “Italian Conference on Optics and Photonics,” May 2020, Parma, Italy
- TPC member of “Fotonica 2018,” May 2018, Lecce, Italy
- TPC member of “Fotonica 2017,” May 2017, Padova, Italy
- TPC member of “Fotonica 2016,” June 2016, Rome, Italy.
- TPC member of “Fotonica 2015,” May 2015, Turin, Italy.

EDITORIAL APPOINTMENTS AND SOCIETY MEMBERSHIPS

- Cristian Antonelli serves as a Topical Editor for Optics Letters. He served as an Associate Editor of the OSA/IEEE *Journal of Lightwave Technology* from 2014 to 2019. He serves as a reviewer for the major optics and photonics related international journals of OSA/IEEE.
- Cristian Antonelli is a Fellow of the Optical Society of America, a Senior Member of the IEEE and a Member of the IEEE Photonics Society.

COURSE PREPATATION AND TEACHING

- Optical communications (graduate program in Telecommunications Engineering, University of L’Aquila).
- Physics 2 (undergraduate program in Information Engineering, University of L’Aquila).

INSTITUTIONAL RESPONSIBILITIES AT THE UNIVERSITY OF L’AQUILA

- From July 2015 to September 2019 Cristian Antonelli has been in the Academic Senate of the University of L’Aquila.
- Since May 2014 Cristian Antonelli has been a member of the advisory board for the PhD program in Information and Communications Technology in the Department of Information Engineering, Computer Science and Mathematics of the University of L’Aquila.

RESEARCH GRANTS

- Member of the research unit of L’Aquila and work-package leader in the national project PRIN 2017 FIRST “Fiber Infrastructure for Research on Space-Division Multiplexed Transmission”: Funding to UnivAQ ~ € 150.000, started in January 2020. Partners: University of L’Aquila, Polytechnic of Turin, Polytechnic of Milan, Scuola Superiore Sant’Anna of Pisa, University of Padova.
- Principal Investigator in the US ARMY reserach 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.
- Co-Principal Investigator and responsible for the optics- and photonics-related activities in project “INnovating City Planning through Information and Communication Technologies (INCIPICT, <http://incipict.univaq.it/>),” funded by the Italian Government un Cipe resolution n. 135, 21/12/2012. Project duration: 6 years from January 2015. Funding to UnivAQ ~ € 5.000.000.
- Member 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.
- Member of the research unit of L’Aquila and work-package leader 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.
- Member 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.
- Member 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.
- Member 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.

PUBLICATIONS

An up-to-date publication list is available on [Google Scholar](#).