

PERSONAL INFORMATION **Alessandro Nordio**✉ alessandro.nordio@ieiit.cnr.it**WORK EXPERIENCE**January 2020 – Present **Senior Researcher**

Institute of Electronics, Computer and Telecommunications Engineering of the National Research Council of Italy (CNR-IEIIT), Torino, Italy

September 2009 – December 2019 **Researcher**

Institute of Electronics, Computer and Telecommunications Engineering of the National Research Council of Italy (CNR-IEIIT), Torino, Italy

April 2002 – September 2009 **Post Doc Researcher**

Department of Electronics and Telecommunications, Politecnico di Torino, Italy

January 1999 – April 2002 **Visiting Scholar**

Institut Eurecom, Sophia Antipolis, France

August 1998 – December 1998 **Research Engineer**

Department of Electronics and Telecommunications, Politecnico di Torino, Italy

EDUCATION AND TRAINING1999–2002 **PhD in Telecommunications**Thesis title [Advanced Signal Processing Algorithms for 3rd Generation Wireless mobile Systems](#)

Issued on April 19th 2002 by École Polytechnique Fédérale del Lausanne, Switzerland

1992–1998 **M.Sc. degree *cum laude* in Telecommunication Engineering**

Issued on July 17th 1998 by Politecnico di Torino, Italy

BIBLIOMETRICS

I have published [104 peer-reviewed articles](#), out of which 42 in highly prestigious international journals, and 51 in major international conferences. I've also co-authored 5 book chapters. The journal publications include 26 IEEE Transactions, 4 IEEE Letters, and 1 ACM Transaction. These journals have a high impact factor and are among the most prestigious in my field. The conference papers have mainly been published in the proceedings of IEEE. In particular I have presented my works at IEEE ICC, IEEE GLOBECOM, IEEE INFOCOM, and IEEE ISIT which are among the most famous conferences in the fields of communications, signal processing and information theory. For these journals and conferences the review process is very strict and the acceptance ratio is low.

AWARDS2014 **Best paper award**

My paper entitled "Estimation Quality of High-dimensional Fields in Wireless Sensor Networks" received the Best Paper Award at the Sixth International Conference on Advances in Satellite and Space Communications (SPACOMM), Nice, France, February 23–27, 2014

DETAILED RESEARCH ACTIVITY**Research topics**

Since 1999 my research activity mainly focused on the theoretical study and the performance assessment of wireless system. In particular I worked on channel estimation and synchronization for the UMTS-TDD standard; joint equalization and multiuser detection strategies; channel coding techniques for multiple-antenna (MIMO) systems; advanced signal processing for Global Navigation Satellite Systems, compliant with the GALILEO standard; wireless sensor networks for the control of remote systems; design of anytime reliable channel codes;

At present I'm conducting a profitable research on large random matrices which finds applications to MIMO systems, to the field of sensor networks and in the reconstruction of signals from non-equally spaced samples; crowdsourcing systems and opinion dynamics; wireless full-duplex multi-hop networks; mmWave communications for 5G applications; on beyond 5G (B5G) mobile systems.

Current research interests

Beyond 5G and 6G wireless communications, smart radio environments, MIMO communications, opinion dynamics, crowdsourcing systems, and random matrix theory

MAIN SCIENTIFIC PROJECTS

- 16/12/2015 – 15/12/2018 *THE4BEES: Transnational holistic ecosystem 4 better energy efficiency through social innovation*
Role CNR-IEIIT principal investigator
Funding European Union through the Interreg Alpine Space Programme (budget: €2.290.449)
- Sep. 2010 – Feb. 2012 *MASP: Control of Protected Areas through Cognitive Monitoring Techniques*
Role CNR-IEIIT principal investigator
Funding Regione Piemonte through PON-FESR funds (budget: €850.000)
- July 2006 – June 2011 *OpenKnowtech: Technology laboratory for integrating managing, and sharing data and knowledge*
Role CNR-IEIIT principal investigator
Funding PON Italy (budget: €4.900.000)

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- 1999– present IEEE member