

Edoardo Bonizzoni

Curriculum Vitae

Personal Informations

DATE AND PLACE OF BIRTH: 22/6/1977, Pavia
AFFILIATION: Department of Electrical, Computer, and Biomedical Engineering - University of Pavia
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Short Biography

Edoardo Bonizzoni was born in Pavia, Italy, in 1977. He received the Laurea degree (*summa cum laude*) in Electronic Engineering from the University of Pavia, Italy, in 2002, with a thesis titled "*Model and algorithm for the design of maximum-efficiency Dickson charge pumps*" (title translated). From the same University, he received in 2006 a Ph.D. degree in Electronic, Computer, and Electrical Engineering. His Ph.D. thesis title was "*Phase change memories*" (title translated).

In 2002 he joined the Integrated Microsystems Laboratory of the University of Pavia as a Ph.D. candidate. During his Ph.D., he worked on the development, design, and testing of non-volatile memories with particular regard to phase-change memories. Since 2006 his research interests have mainly focused on the design and testing of A/D converters, high-performance analog blocks, sensor interface circuits, and power management solutions.

In these years, 30+ circuits have been designed (including the layout of both the analog and digital sections), integrated into different CMOS technologies (0.35 μm , 0.18 μm , 65 nm, 28 nm), and experimentally evaluated. The research activity has been mostly developed in tight cooperation with the leading semiconductor companies (STMicroelectronics, ams-OSRAM, Infineon, Analog Devices, Invensense-TDK, Inventvm, Dialog Semiconductors (Renesas), Microtera). He attracted 1.5 M€+ from the industrial partners to support his research activity.

He has been also part (and in some cases principal investigator) of several research projects funded by the European Community programs or by National programs. His research activity has been funded with 2 M€+.

Presently, he is an Associate Professor at the Department of Electrical, Computer, and Biomedical Engineering of the University of Pavia, where he teaches two courses titled "Analog Integrated Circuits" and "Integrated Power Management" for master students and a course titled "Elettronica I" (basic electronics) for undergraduate students. Dr. Bonizzoni is the author or co-author of 185+ papers, published in international journals and in proceedings of international conferences.

Dr. Bonizzoni is co-recipient of the *IEEE International Symposium on Circuits and Systems (ISCAS) 2014 Honorary Mention Paper Award* of the Sensory Systems Track, of the *IEEE/IEEJ Analog VLSI Workshop (AVLSIWS) 2010* best paper award, of the *IEEE European Solid-State Circuits Conference (ESSCIRC) 2007* best paper award and of the *IEEE/IEEJ Analog VLSI Workshop (AVLSIWS) 2007* best paper award.

Prof. Bonizzoni is a member of the Analog Signal Processing Technical Committee of *IEEE CASS*. He has served the CAS Society as an Associate Editor of the *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART II: EXPRESS BRIEFS (TCAS-II)* from 2011 to 2015 and as an Associate Editor of the *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART I: REGULAR PAPERS (TCAS-I)* from 2016 to 2019. From 2020 to 2021 and from 2022 to 2023, he was Associate Editor in Chief for Digital Communications and Associate Editor in Chief of the *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART II: EXPRESS BRIEFS (TCAS-II)*, respectively. Prof. Bonizzoni has been nominated Best TCAS-II Associate Editor for the 2012-2013 term. Currently, he is the Editor in Chief of the *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART II: EXPRESS BRIEFS*. He has been part of several Organizing Committees of *IEEE CASS* conferences (ISCAS, ISICAS, ICECS, MWSCAS,

PRIME among others), and he is a TPC member of the IEEE Custom Integrated Circuits Conference (CICC). He has been an IEEE Senior member since 2018.

Career Progression

- Dec. 2018 - present: Associate Professor at the University of Pavia.
- 2015 - 2018: Senior Assistant Professor at the University of Pavia;
- 2011 - 2015: Junior Assistant Professor at the University of Pavia;
- 2006 - 2011: Post-Doctoral Position at the University of Pavia;
- 2006: Ph.D. Degree in Electronic, Computer, and Electrical Engineering at the University of Pavia;
- 2002: Laurea Degree in Electronic Engineering (5-year program) at the University of Pavia;

Author Identifiers and Bibliometric Indicators

- OrcID: 0000-0002-8398-8506
- Scopus Author ID: 21833627900
- Number of publications (Scopus database as of November 24th, 2023): 184
- Number of citations (Scopus database as of November 24th, 2023): 1585
- H-index (Scopus database as of November 24th, 2023): 20

Editorial Activity

- 2024 - 2025, Editor in Chief for *IEEE Transactions on Circuits and Systems – Part II*;
- 2022 - 2023, Associate Editor in Chief for *IEEE Transactions on Circuits and Systems – Part II* (EiC Y. Ha);
- 2020 - 2021, Digital Communications Editor in Chief for *IEEE Transactions on Circuits and Systems – Part II* (EiC J.M. de la Rosa);
- 2016 - 2019, Associate Editor *IEEE Transactions on Circuits and Systems – Part I* (EiC A. Demosthenous);
- 2014 - 2015, Associate Editor *IEEE Transactions on Circuits and Systems – Part II* (EiC J. Silva-Martinez);
- 2011 - 2013, Associate Editor *IEEE Transactions on Circuits and Systems – Part II* (EiC Y. Lian).

Activity in the International Scientific Community

- 2020 - present: TPC member of the *IEEE Custom Integrated Circuits Conference (CICC) - Analog subcom*;
- 2018 - present: member of the *IEEE CASS Analog and Signal Processing Technical Program Committee*;
- 2018 - present: Review Committee Member of *IEEE International Symposium on Circuits and Systems (ISCAS)*;
- 2013 - present: TPC member of *IEEE Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)*;
- 2024: Industrial Liaison Chair for *IEEE Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)*;
- 2023: TPC Co-Chair for *International Symposium on Integrated Circuits and Systems (ISICAS)*;
- 2023: Publication Co-Chair for *International Symposium on Circuits and Systems (ISCAS)*;
- 2023: Publication Co-Chair and Track Chair for *IEEE International Conference on Electronics, Circuits, and Systems (ICECS)*;
- 2023: Industrial Liaison Chair for *IEEE Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)*;
- 2023: Track Chair for *Midwest Symposium on Circuits and Systems (MWSCAS)*;
- 2022: TPC Chair for *IEEE Conference on Ph.D. Research in Microelectronics and Electronics (PRIME)*;
- 2021: TPC Co-Chair for *International Symposium on Integrated Circuits and Systems (ISICAS)*;

- 2020: International Advisor for *International Symposium on Integrated Circuits and Systems (ISICAS)*;
- 2019: TPC Co-Chair for *International Symposium on Integrated Circuits and Systems (ISICAS)*;
- 2019: Industrial Liaison Chair for *IEEE International Conference on Electronics, Circuits, and Systems (ICECS)*;
- 2019: Demo Co-Chair for *International Symposium on Circuits and Systems (ISCAS)*;
- 2018: TPC Co-Chair for *International Symposium on Integrated Circuits and Systems (ISICAS)*;
- 2018: Publication Co-Chair for *International Symposium on Circuits and Systems (ISCAS)*;
- 2015: Responsible and proponent of *STAR-CAS (Selected Topics on Advanced Research on Circuits and Systems)* (<http://ims.unipv.it/STARCAS>), an *IEEE Circuits and Systems Society* event in the frame of the Outreach program;
- 2015: TPC Co-Chair of *IEEE Region 10 Technical Conference (TENCON)*.

Invited Presentations/Lessons

- "Analog integrated circuits", short course within the Summer School of the University of Electronic Science and Technology of China (UESTC), Chengdu, China, July 2019.
- "Smart-DEM for energy-efficient incremental ADCs" (invited by Prof. K.A.A. Makinwa, Delft University of Technology), *24th Workshop on Advances in Analog Circuit Design (AACD)*, Neuchâtel, Switzerland, April 2015;
- "Single-inductor multiple outputs (SIMO) DC-DC converters", invited lesson at the Infineon Winter School, Villach, Austria, February 2017;
- "Low power Nyquist rate data converters", short course within the Global Initiative on Academic Network (GIAN) issued by the Ministry of Human Resource Development of the Government of India, National Institute of Technology (NIT) Goa, India, March 2017.
- "Analog integrated circuits", short course within the Summer School of the University of Electronic Science and Technology of China (UESTC), Chengdu, China, July 2017.

Awards

- *Honorary Mention Paper Award* received at the *IEEE International Symposium on Circuits and Systems 2014* for the paper titled "A Current-Mode CMOS Integrated Microsystem for Current Spinning Magnetic Hall Sensors" authored by H. Heidari, E. Bonizzoni, U. Gatti, F. Maloberti;
- *Best Associate Editor* of the *IEEE Transactions on Circuits and Systems - II* for the term 2012-2013;
- *Best Paper Award* received at the *IEEE/IEEJ International Analog VLSI Workshop 2010* for the paper titled "High-Resolution Multi-Bit Incremental Converter with 1.5- μ V Residual Offset and 94-dB SFDR" authored by A. Agnes, E. Bonizzoni, A. D'Amato, I. Galdi, F. Maloberti;
- *Best Paper Award* received at the *IEEE European Solid-State Circuits Conference 2007* for the paper titled "Two-path band-pass $\Sigma\Delta$ modulator with 40-MHz IF 72-dB DR at 1-MHz bandwidth consuming 16 mW" authored by I. Galdi, E. Bonizzoni, F. Maloberti, G. Manganaro, P. Malcovati;
- *Best Paper Award* received at the *IEEE/IEEJ International Analog VLSI Workshop 2007* for the paper titled "Quasi-Second Order $\Sigma\Delta$ Modulator Based on Phase-Integration" authored by H. Caracciolo, E. Bonizzoni, F. Maloberti.