

Cristoforo Marzocca

Associate professor of Electronics (SSD ING-INF01)
Department of Electrical and Information Engineering, Politecnico di Bari

Personal information and education

Date of birth: 01/06/1963

Place of birth: Bari

Nationality: Italian

Address: Via Vecchia Corato 83/A1, 76011 Bisceglie (BT)

He received the high school diploma in the classics with full marks in July 1982 at Liceo Classico Leonardo Da Vinci, in Molfetta (BA).

He graduated summa cum laude in Electronic Engineering in 1989 at the University of Bari, defending the master thesis entitled “Specialized co-processors in non-homogeneous Hypercube structures”, (discipline “Design of Components and Integrated Circuits”, advisors prof. F. Corsi and G. Aloisio)

He got a one-year scholarship (from 1/11/1989 31/10/1990) in the framework of the second National Program for Microelectronics (PNM2) and attended a six months course of design of VLSI integrated circuit at the Scuola Superiore G. Reiss Romoli in L’Aquila, specializing in techniques for the test of digital integrated circuits.

From November 1990 to October 1991 he served in the Italian army and, from January to June 1992 he taught electric circuits and systems at the high school, while carrying on research activities about integrated circuit testing in collaboration with the Department of Electric and Electronic Engineering of Politecnico di Bari.

From June 1992 to December 2003 he has been an assistant professor of Electronics at Politecnico di Bari, Department of Electrical and Electronic Engineering.

Since December 2003 he is an associate professor of Electronics at the Department of Electric and Information Technology of Politecnico di Bari.

Teaching activity

During his academic career, Cristoforo Marzocca has carried out the following institutional teaching activity:

Exercise and laboratory lectures for the following courses at Politecnico di Bari:

- Applied Electronics (master in Electronics Engineering, course lecturer prof. Francesco Corsi), from a.a. 1992-1993 to a.a. 2002-2003
- Design of electronic circuits and systems (master in Electronics Engineering, course lecturer prof.

Francesco Corsi), from a.a. 1992-1993 to a.a. 2002-2003

- Applied Electronics (master in Electrical Engineering, course lecturer prof. Beniamino Castagnolo) a.a. 1994-1995
- Electronic Devices (master in Electronics Engineering, course lecturer prof. Anna Gina Perri) from a.a. 1992-1993 to a.a. 1994-1995

Courses taught at Politecnico di Bari, in quality of titular lecturer or appointed deputy:

- Microelectronics module for the bachelor degree in Electronics Engineering, from a.a. 1996-1997 to a.a. 2001-2002 (6 CFU)
- Applied Electronics for the bachelor degree in Electrical Engineering (branch of Bari) from a.a. 2002-2003 to a.a. 2004-2005 and from a.a. 2010-2011 to a.a. 2018-2019 (9 CFU)
- Applied Electronics for the bachelor degree in Electrical Engineering (branch of Foggia) from a.a. 2003-2004 to a.a. 2010-2011 (9 CFU)
- Electronics III for the master degree in Electronics Engineering from a.a. 2005-2006 to a.a. 2009-2010 (6 CFU)
- Advanced topics in Analog Electronics for the master degree in Electronics Engineering from a.a. 2010-2011 to a.a. 2018-2019 (6 CFU)
- Module of Analog Electronics for the bachelor degree in Electronics and Telecommunication Engineering in the a.a. 2018-2019 (6 CFU).

He has been in several examination boards of courses taught at Politecnico di Bari and has always guaranteed adequate assistance to the students, serving as tutor for several of them. In particular he served as advisor for several thesis students for the bachelor and master degrees. In the last five years he has been advisor or co-advisor of about thirty master thesis in Electronics Engineering and about twenty bachelor thesis in Electrical Engineering.

He is in the board of professors of the PhD in Electrical and Information Engineering of Politecnico di Bari (former PhD in Electrical and Electronic Engineering) and served as a tutor for three PhD students in the past. Presently he is tutor of two students of the same PhD course.

Scientific activity

Main research interests:

- Test and automated tuning techniques for digital and analog integrated circuits
- Characterization and modeling of electronic devices for integrated circuits (MOSFETs and Caratterizzazione di dispositivi elettronici per circuiti integrati (Silicon MOSFETs and BJTs)
- Statistical study of the performance of analog building blocks designed in CMOS technology

- Study and characterization of solid-state detectors for High Energy Physics and medical imaging applications
- Development of CMOS integrated front-end electronics for solid-state detectors (Silicon Drift Detectors, PIN diodes, pixel diodes, Silicon Photomultipliers) and gaseous detectors (GEM)

Affiliation to research institutions

Appointment as an associated technologist to the Italian Institute of Nuclear Physics (INFN), Sezione di Bari, renewed year by year since 1997.

Participation in the activities of research groups with national and international collaborations

Participation in the research activities of the Bari research unit involved in the national project “MURST ex-40%” entitled “Qualità di dispositivi e sistemi microelettronici” – national and local scientific coordinator prof. F. Corsi, Politecnico di Bari (main activity: development of test techniques for digital and analog integrated circuits).
1993 – 1995

Participation in the research activities of INFN-Sezione di Bari for the experiment DSI (Committee V – National coordinator dr. A. Vacchi, INFN Trieste, local coordinator prof. F. Corsi, Politecnico di Bari (main activity: development of Silicon Drift Chamber detectors).
1995 - 1998

Participation in the research activities of INFN-Sezione di Bari for the experiment ALICE (Committee III) (main activity: development of SDD detectors and the associated electronics, development of electronics for pixel detectors).
1995 - 2013

Participation in the research activities of the Bari research unit involved in the national project “MURST ex-40%” entitled “Tecnologie microelettroniche e nano elettroniche” - national scientific coordinator prof. G. Soncini, University of Trento, local scientific coordinator prof. F. Corsi, Politecnico di Bari (main activity: development of test techniques for digital and analog integrated circuits).
1996

Participation in the research activities of the Bari research unit involved in the national project “MADESS II” entitled “Matrici di sensori a stato solido” - national scientific coordinator prof. G.U. Pignatelli, University of Trento, specific title of the Bari research “Sistema di X-ray imaging per il controllo materiali/manufatti basato su una matrice di sensori X”, local scientific coordinator prof. F. Corsi (main activity: development of an architecture for the read-out of an array of PIN diode for industrial X-ray scanners). 1999 – 2001

Participation in the research activities in the framework of the research project financed by National Semiconductor Data Conversion Systems (DCS) of Furstenfeldbruck, (Germany), entitled “Circuit design techniques for low-voltage high-gain amplifiers”, scientific coordinator prof. F. Corsi (main activity: development of innovative circuit solutions for the design of low-voltage, high-gain integrated CMOS amplifiers).
7 marzo 2001 – 31 dic. 2004

Participation in the research activities in the framework of the research project financed by Infineon Technologies Austria AG, Villach (Austria), entitled “Filter Solution for VDSL in C11 technology”, scientific coordinator prof. F. Corsi (main activity: development of innovative circuit solutions for the linearization of OTA-C integrated filters and development of new test techniques for continuous-time linear).

2001 – 2002

Participation in the research activities in the framework of the research contract between the Department of Electrical and Electronic Engineering and the company Elettronika S.R.L., Palo del Colle, aimed at the realization of an integrated circuit for biasing LDMOS power transistors in RF applications, scientific coordinator prof. F. Corsi (main activity: development of innovative circuit solutions for the adaptive bias of power LDMOS in DVB-T systems).

30/10/2002 - 12/09/2003

Participation in the research activities of the Bari research unit involved in the national project PRIN 2003 entitled “Imaging molecolare radioisotopico mediante matrici di sensori a pixel attivi in silicio”, national coordinator prof. G.U. Pignatelli, University of Perugia, local coordinator prof. F. Corsi (main activity: definition and design of a CMOS 8-channel analog front-end for the read-out of an array of PIN diodes for scintimammography applications).

2003-2005

Participation in the research activities of INFN-Sezione di Bari for the experiment DACEL (Committee V) national coordinator dr. N. Bacchetta, INFN Padova, local coordinator dr. A. Ranieri, INFN Bari (main activity: noise characterization of sub-micron MOSFET devices).

2005-2007

Participation in the research activities of INFN-Sezione di Bari for the experiments DASiPM and DASiPM2 (Committee V), national coordinator prof. A. Del Guerra, University of Pisa, local coordinator prof. F. Corsi (main activity: development of integrated electronics for Silicon Photomultiplier detectors).

2006-2010

Participation in the research activities in the framework of the research project financed by Apulia regional government “APQ in Materia di Ricerca Scientifica - Prog. Strategici”, entitled “PS 121 - Infrastrutture di Telecomunicazione e Reti Wireless di Sensori nella Gestione di Situazioni di Emergenza”. Specific title of the project carried out by the research unit: “Rete di telecomunicazione integrata di prevenzione e intervento per le emergenze naturali e civili”, scientific coordinator prof. B. Maione, Politecnico di Bari, coordinator of the research unit prof. P. Camarda, Politecnico di Bari (main activity: development of a wireless sensor network for monitoring and management of emergency situations).

01/01/2007 al 30/06/2008

Participation in the research activities in the framework of the research project financed by Apulia regional government “POR Puglia 2000-2006, Misura 6.2 “Società dell’Informazione” Azione C - Progetti Pilota”, entitled “MONICA, MONItoraggio e Controllo Adattivo - mobilità merci pericolose”, scientific coordinator prof. G. Visaggio, University of Bari, coordinators of the research unit prof. F. Corsi e prof. P. Camarda, Politecnico di Bari (main activity: development of sensors and electronics of a monitoring system for the transportation of dangerous goods).

01/01/2007 al 30/09/2008

Co-responsible with prof. F. Corsi of the research contract between the Department of Electrical and Electronic Engineering and the company International Aviation Supply s.r.l., Brindisi, entitled “Innovazione di prodotto nel settore degli Unmanned Aerial Vehicle (UAV) di piccole dimensioni” (main activity: design of an antenna preamplifier for increasing the radio coverage of the data communication system of the UAV aircraft for environmental monitoring application).

From March 2008 to June 2008.

Participation in the research activities of the Bari research unit involved in the national project PRIN 2007 entitled “Un tomografo PET per piccoli animali ad altissima risoluzione spaziale basato su fotomoltiplicatori al silicio ad alta granularità”, national coordinator prof. A. Del Guerra, University of Pisa, local coordinator prof. F. Corsi (main activity: definition of the most suitable circuit topologies for the read-out of SiPM detectors and development of the electrical model of the detector).

2008-2010

Participation in the research activities in the framework of the research project financed by Apulia regional government “APQ in Materia di Ricerca Scientifica - Prog. Strategici”, entitled “PS 092 - Produzione Dispersa come Sistema Innovativo (DIPIS)”. Specific title of the project carried out by the research unit: “Protocolli ed infrastrutture di rete innovativi per uno scambio efficiente di informazioni tra imprese”, scientific coordinator prof. G. Visaggio, University of Bari, coordinator of the research unit prof. F. Corsi, Politecnico di Bari (main activity: development of an electronic system for monitoring transport fleets).
06/09/2008 al 05/03/2011

Participation in the research activities of INFN-Sezione di Bari for the experiment CHIPSODIA (Committee V) – national coordinator dr. G. Parrini, INFN Firenze, local coordinator dr. A. Ranieri, INFN Bari (main activity: realization and characterization of “Silicon on Diamond” devices).
2011-2012

Participation in the research activities of INFN-Sezione di Bari for the experiment 4D-MPET (Committee V) – national coordinator prof. M.G. Bisogni, INFN Pisa, local coordinator prof. F. Corsi, Politecnico di Bari (main activity: development of integrated multichannel electronics for Silicon Photomultiplier detectors).
2011 – 2013

Scientific responsibility of the objective OR 2.2.4 “Studio di chip a basso rumore per acquisizione di segnali da rilevatori GEM” in the framework of the research project “PON R&C 2007-2013, Asse I – Titolo II - Sviluppo/potenziamento di Distretti ad Alta Tecnologia e di Laboratori pubblico/privati” entitled “AMIDERHA – Sistemi avanzati mini-invasivi di diagnosi e radioterapia” financed by the Italian Ministry of University MIUR (main activity: design and realization of CMOS multichannel integrated electronics for the read-out of GEM detectors for applications in beam monitoring in hadron-therapy).
09/10/2012 al 31/12/2015

Participation in the research activities of the Bari research unit involved in the national project PRIN 2010-2011 entitled “INSIDE: Soluzioni Innovative per la Dosimetria "In-beam" in Adroterapia Oncologica”, nazionale coordinator prof. A. Del Guerra, University of Pisa, locale coordinator prof. F. Corsi (main activity: development of a multichannel ASIC for the read-out of SiPM arrays to be used in an on-line PET for hadron-therapy).
2013-2016

Participation in the research activities of INFN-Sezione di Bari for the experiment CMS (Committee I) (main activity: development of analog building blocks in technology CMOS 65nm for pixel detectors).
2014 –

Participation in the research activities of INFN-Sezione di Bari for the experiment CHIPPIX65 (Committee V) – national coordinator dr. N. Demaria, INFN Torino, local coordinator dr. F. Loddo, INFN Bari (main activity: development of analog integrated circuits in 65nm CMOS technology).
2015 – 2017

Scientific responsibility of the 16 months research contract between the Department of Electrical and Electronic Engineering of Politecnico di Bari and SLAC National Accelerator Laboratory, University of Stanford (USA), aimed to the design of integrated electronics for SiPM detectors very good high timing accuracy performance (project entitled “Collaboration on the development of a Time-of-Flight (ToF) readout system for Silicon Photon Multipliers”).
2016-2018

Scientific responsibility of the objective entitled “Studio, definizione e realizzazione di un’architettura a basso rumore per la lettura dei segnali di uscita dal sistema di dose delivery”, in the framework of the research project PON “ERHA-Radioterapia Avanzata con Adroni”, n. F/050425/01/X32, financed by the Italian Ministry for the Economic Development, MISE.
2018-

Scientific responsibility of the WP entitled “Progettazione delle schede”, in the framework of the research

project PON 2014-2020 entitled “FURTHER - Future Rivoluzionarie Tecnologie per velivoli più Elettrici” - ARS01_1283 - avviso MIUR 13/07/2017 n. 1735/Ric., financed by Italian Ministry of University, MIUR. 2018-

Participation in the research activities in the framework of the Innolabs research project entitled “Sistema partecipativo attivo per la sensibilizzazione delle comunità al rischio di esposizione al GAS RADON”, Project code: UL6XI28, financed by the Apulia regional government, scientific coordinator prof. V. Di Lecce, Politecnico di Bari (main activity: development of read-out electronics for PIN detectors for monitoring the radon concentration in the environment). 2018-

Scientific responsibility of the following research projects financed by Politecnico di Bari:

- “Progettazione di circuiti integrati CMOS analogici a bassissimo rumore” (1996)
- “Progettazione e caratterizzazione di elettronica di front-end per rivelatori di particelle” (1997/1999)
- “Progettazione di elettronica di front-end per rivelatori di radiazione X” (2001)
- “Tecniche innovative per la compensazione termica di rivelatori SiPM” (2012)
- “Sviluppo di elettronica per rivelatori di tipo pixel in tecnologia CMOS deep submicron” (2016)

Collaborations with national and international research institutions and companies

- University of Perugia (design of low noise electronics for PIN detectors)
- Politecnico di Milano (design of low noise electronics for PIN detectors)
- University of Pisa (development of integrated electronics for SiPM detectors and study of the electrical model of the detector)
- FBK-Irst Trento (development of electronics for PIN detectors and e study of the electrical model of SiPM detectors)
- University of Trieste (design of electronics for arrays of PIN detectors for scintimammography applications)
- Istituto Superiore di Sanità Roma (design of electronics for arrays of PIN detectors for scintimammography applications)
- ST Microelectronics, Agrate Brianza (development of test methodologies for digital integrated circuits based on the Inductive Fault Analysis)
- Elettronika s.r.l. – Palo del Colle (design of an ASIC for the control of the bias of a power MOSFET for DVB-T applications)
- International Aviation Supply s.r.l. – Brindisi (development of electronics for UAV for environmental monitoring applications)
- INFN, Sezioni di Pisa, Padova, Perugia, Torino (various experiments of Committee V INFN)
- CERN – Geneva (ALICE experiment, CMS experiment, RD53 collaboration)
- Brookhaven National Laboratory, Upton, USA (design of low noise electronics for large area Silicon drift detectors)
- INESC – Lisbona, Portugal (test methodologies for digital integrated circuits)
- IBM – Boulder, CO, USA (test methodologies for digital integrated circuits)
- Infineon Technologies – Villach, Austria (development of circuit techniques for integrated CMOS linear filters for ADSL applications)
- National Semiconductors – Munich, Germany (studi of low-voltage OPAMP in CMOS technology)
- SLAC Stanford, USA (development of electronics for SiPM detectors for medical imaging applications)

- R&D center Huawei at Sophia Antipolis, France (study of filters for the optimization of the performance of all-digital PLLs)
- PRISMA Detector Lab, Johannes Gutenberg Universitat Mainz, Germany (development of large bandwidth, low-noise electronics for SiPM detectors)

Scientific productivity indexes:

The Hirsch index associated to the scientific publications is 17 (source: Scopus)

The total number of citations is 2696 (source: Scopus)

List of the scientific publications

Papers published on international journals

[R1] F. Corsi, S. Martino, C. Marzocca, R. Tangorra, C. Baroni, M. Buraschi:

“Critical areas for finite length conductors “

Microelectronics and reliability, Vol. 32, n. 11, pp. 1539-1544, printed in Great Britain, 1992.

[R2] F. Corsi, D. Del Console, C. Marzocca:

“Defect Level for Non-equiprobable Faults in Digital IC's “

IEE Electronics Letters Vol. 29 n. 8, pp. 653-654, printed in Great Britain, 15 April 1993.

[R3] F. Corsi, C. Marzocca, G.V. Portacci:

“A New Experimental Technique for Fast and Accurate MOSFET Threshold Extraction “

IEE Electronics Letters Vol. 29, N 15, pp. 1358-1359, 22 July 1993.

[R4] G. Gramegna, F. Corsi, E. Cantatore, M. Cuomo, D. De Venuto, C. Marzocca, G. Portacci, A. Vacchi, V. Manzari, F. Navach, S. Beol , G. Casse, P. Giubellino, L. Riccati, P. Burger:

“Use of Field Plate in a Linear Silicon Drift Detector “

Nuclear Instruments and Methods in Physics Research A, vol. A 360, pp. 110-112, 1995.

[R5] S. Beol , P. Burger, E. Cantatore, G. Casse, F. Corsi, M. Cuomo, W. Dabrowski, D. De Venuto, P. Giubellino, G. Gramegna, V. Manzari, C. Marzocca, F. Navach, G. Portacci, L. Riccati, A. Vacchi:

“ Steps toward the Use of Silicon drift Detectors in Heavy Ion collisions at LHC “

Nuclear Instruments and Methods in Physics Research A, vol. A 360, pp. 67-70, 1995.

[R6] G. Gramegna, F. Corsi, D. De Venuto, C. Marzocca, A. Vacchi, V. Manzari, F. Navach, S. Beol , G. Casse, P. Giubellino, L. Riccati, P. Burger:

“Designing a Linear Silicon Drift Detector “

IEEE Transactions on Nuclear Science, vol. 42, no. 5, pp.1497-1504, October 1995.

[R7] S. Beol , V. Bonvicini, P. Burger, G. Casse, F. Corsi, D. De Venuto, P. Giubellino, G. Gramegna, A. Kolojvari, V. Manzari, C. Marzocca, A. Rashevsky, L. Riccati, L. Vinogradov, A. Vacchi, N. Zampa:

“Silicon Drift Detector; Studies about Geometry of Electrodes and Production Technology “

Nuclear Instruments and Methods in Physics Research A, vol. A377, pp. 393-396, 1996.

[R8] F. Corsi, G. Gramegna, D. De Venuto, C. Marzocca, S. Beole, V. Bonvicini, P. Burger, G. Casse, P. Giubellino, A. Kolojvari, V. Manzari, A. Rashevsky, L. Riccati, L. Vinogradov, A. Vacchi, N. Zampa (DSI Collaboration):

“New Developments on Silicon Drift Detector “

Il Nuovo Cimento, vol. 109A, No. 9, pp. 1261-1268, September 1996.

[R9] J. Teixeira de Sousa, F. M. Gonalves, J. Paulo Teixeira, C. Marzocca, F. Corsi, T.W. Williams:

“Defect Level Evaluation in an IC Design Environment “

IEEE Transactions on CAD/ICAS, vol.15, no. 10, pp. 1286-1293, October 1996.

[R10] E. Cantatore, M. Campbell, E. Chesi, F. Corsi, D. De Venuto, G. Gramegna, E.HM. Heijne, C. Marzocca, P. Middlekamp, L. Scharfetter, S. Simone, W. Snoeys:

“Statistical Analysis and Optimization of Delay Line Chains for Pixel Readout Electronics “

Nuclear Instruments and Methods in Physics Research A, vol. A395, pp. 318-323, 1997.

[R11] F. Corsi, G. Gramegna, D. De Venuto, C. Marzocca:

”A Novel Cathode Structure for a Self -biased Linear Silicon Drift Detector “

Nuclear Instruments and Methods in Physics Research A, vol. A387, pp. 246-249, 1997.

[R12] P. O’Connor, G. Gramegna, P. Rehak, F. Corsi, C. Marzocca:

“CMOS Preamplifier with High Linearity and Ultra Low Noise for X-Ray Spectroscopy “

IEEE Transactions on Nuclear Science, vol. 44, n. 3, pag. 318-325, giugno 1997.

[R13] P. O’Connor, G. Gramegna, P. Rehak, F. Corsi, C. Marzocca:

“Ultra Low Noise CMOS Preamplifier-Shaper for X-Ray Spectroscopy “

Nuclear Instruments and Methods in Physics Research A, vol. A409, pp. 315-321, 1998.

[R14] F. Corsi, D. De Venuto, G. Gramegna, C. Marzocca, A. Vacchi, V. Bonvicini, P. Burger, A. Rashevsky, N. Zampa:

“A Novel Self-Biased Linear Silicon Drift Detector “

IEEE Transactions on Nuclear Science, vol. 46, no.1, pp. 19-27, February 1999.

[R15] F. Corsi, M. Di Ciano, C. Marzocca:

“Dc Characterization of Lateral Bipolar Devices in Standard CMOS Technology: a New Model for base Current Partitioning”

Solid-State Electronics, no. 43, pp. 883-889, February 1999.

[R16] G. Matarrese, F. Corsi, C. Marzocca:

“Fast and Realistic Worst Case Analysis of CMOS Integrated Circuits “

IEE Electronics Letters, vol. 37, No. 6, pp. 350-351, March 2001.

[R17] G. Matarrese, C. Marzocca, F. Corsi:

“An Approach to the Statistical Analysis of CMOS Integrated Circuits”

Alta Frequenza – Rivista di Elettronica, vol. 13, N. 5, pp. 51-55, September 2001.

[R18] C. Marzocca, F. Corsi:

“Mixed-Signal Circuit Classification in a Pseudo-Random Testing Scheme”

Journal of Electronic Testing: Theory and Applications, Kluwer Academic Publishers, vol. 18, no. 3, pp. 333-342, June 2002.

[R19] F. Corsi, C. Marzocca, G. Matarrese:

“On Impedance Evaluation in Feedback Circuits”

IEEE Transactions on Education, vol. 45, no. 4 , pp. 371 –379, November 2002.

[R20] F. Corsi, C. Marzocca:

“An Approach to the Analysis of the CMOS Differential Stage With Active Load and Single-Ended Output”

IEEE Transactions on Education, vol. 46, no. 3 , pp. 325 –328, August 2003.

[R21] L. Pancheri, C. Marzocca, M. Boscardin G.-F. Dalla Betta:

“Silicon Pin Detector with Integrated JFET-based Source Follower”

IEE Electronics Letters, vol. 40, No. 20, September 2004.

[R22] A. Dragone, F. Corsi, C. Marzocca, P. Losito, D. Pasqua, E. Nappi, R. De Leo, J. Séguinot, A. Braem,

E. Chesi, C. Joram, P. Weilhammer, F. Garibaldi, H. Zaidi: "An Event Driven Read-out System for a Novel PET Scanner with Compton Enhanced 3D Gamma Reconstruction", IEEE Transactions on Nuclear Science, vol. 53, no. 3, pp. 1156-1161, June 2006.

[R23] L. Stebel, M. Tommasi, S. Carrato, G. Cautero, M. Petasecca, G. Pignatelli, C. Marzocca, A. Tauro, A. Dragone, F. Corsi, G. Dalla Betta, A. Fazzi, N. Zorzi: "Development of a Prototype Detector for Use in Scintimammography Imaging" Microelectronics Journal, vol. 37, no. 12, pp. 1598-1609, December 2006.

[R24] S. Carrato, G. Cautero, F. Corsi, G.F. Dalla Betta, A. Dragone, A. Fazzi, F. Garibaldi, C. Marzocca, M. Petasecca, G.U. Pignatelli, L. Stebel, A. Tauro, V. Varoli, N. Zorzi: "A Functionally Reconfigurable Detector Head for Scintimammography", Nuclear Instruments and Methods in Physics Research A, vol. A571, pp. 369-372, 2007.

[R25] F. Corsi, A. Dragone, C. Marzocca, A. Del Guerra, P. Delizia, N. Dinu, C. Piemonte, M. Boscardin, G.F. Dalla Betta: "Modelling a Silicon Photomultiplier (SiPM) as a Signal Source For Optimum Front-End Design", Nuclear Instruments and Methods in Physics Research A, vol. A572, pp. 416-418, 2007.

[R26] N. Dinu, R. Battiston, M. Boscardin, F. Corsi, G.F. Dalla Betta, A. Del Guerra, G. Llosa-Llaser, M. Ionica, G. Levi, S. Marcatili, C. Marzocca, C. Piemonte, G. Pignatelli, A. Pozza, L. Quadrani, C. Sbarra, N. Zorzi: "Development of the First Prototypes of Silicon PhotoMultiplier (SiPM) at ITC-irst", Nuclear Instruments and Methods in Physics Research A, vol. A572, pp. 422-426, 2007.

[R27] F. Corsi, G. Matarrese, C. Marzocca, A. Dragone, A. Baschiroto, S. D'Amico: "Tuning of High-Speed Telecommunication Filters, via I/O Cross-Correlation Evaluation" IEEE Transactions on Circuit and Systems, vol. 54, no.2, pp. 329-337, February 2007.

[R28] A. Del Guerra, G. Collazuol, G. Llosá, S. Marcatili, C. Piemonte, G-F. Dalla Betta, G. Ambrosi, R. Battiston, M. Ionica, G. Levi, F. Corsi, C. Marzocca, G. Matarrese, M. Foresta: "Results and Applications of SiPM photodetectors from FBK-irst by the DASIPM Collaboration", Nuovo Cimento C, vol. 030, no. 05, p. 493, September-October 2007.

[R29] G. Llosá, R. Battiston, N. Belcari, M. Boscardin, G. Collazuol, F. Corsi, G-F. Dalla Betta, Alberto Del Guerra, N. Dinu, G. Levi, S. Marcatili, S. Moehrs, C Marzocca, C. Piemonte, A. Pozza: "Novel Silicon Photomultipliers for PET Applications", IEEE Transactions on Nuclear Science, vol. 55, no. 3, pp. 877-881, June 2008.

[R30] F. Corsi, M. Foresta, C. Marzocca, G. Matarrese and A. Del Guerra, "ASIC development for SiPM readout", IOP - Journal of Instrumentation (JINST), n. 4 – P3004, pp. 1-10, doi: [10.1088/1748-0221/4/03/P03004](https://doi.org/10.1088/1748-0221/4/03/P03004), March 2009.

[R31] F. Corsi, M. Foresta, C. Marzocca, G. Matarrese, A. Del Guerra, "[CMOS analog front-end channel for silicon photo-multipliers](#)", Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, vol. A617, pp. 319-320, 2010.

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Revision activity for the following international scientific journals

IEEE Transactions on Nuclear Science

IEEE Transactions on Circuits and Systems

IEEE Transactions on Education

IET Electronics Letters

Nuclear Instruments and Methods in Physics Research A, Elsevier

Microelectronics Journal, Elsevier

Journal of Circuits, Systems and Computers, World Scientific Publishing

International Journal of Electronics, Taylor&Francis

Applied Science, MDPI

Sensors, MDPI

Third mission activities

Founding member and chief executive officer since 2013 of a spin-off company of Politecnico di Bari, called Microlaben s.r.l., which deals with the design and realization of innovative custom electronics for advanced sensors.

Presentation entitled “Active Acoustic Enhancement: Sistemi attivi per l’ottimizzazione dell’acustica degli ambienti di ascolto”, during the study day “Le danze dei suoni, dialoghi tra musica, scienza e tecnologia”. Politecnico di Bari, 25 November 2017

Presentation entitled “Amplificatori audio in classe D: pro e contro” in the framework of the event “Bari Hi-End”. Hotel Sheraton, Bari, 5 November 2016

Series of lessons about the design of the layout of CMOS analog integrated circuits, as a part of a microelectronics course aimed at technologists of Italian Institute of Nuclear Physics, that took place at INFN-Sezione di Bari.
2000, 2001, 2002

Participation in a project financed by the European Community in the framework of the programme Leonardo, aimed at the realization of a multimedia educational product for the diffusion of microelectronics among the small and medium enterprises.
1998-2000

Series of lessons, for a total of 48 hours, about design of CMOS analog electronics, as a part of the course “Specialisti di Microtecnologie”, which took place at Tecnopolis CSATA Novus Ortus, Valenzano.
November 1997

Academic management institutional activities

Member of the Quality Assurance Board of Politecnico di Bari since January 2013, deputy president since 2017.

Deputy coordinator of the Master graduation course in Electronics Engineering since a.a. 2015-2016.

Member of the Teaching Committee and of the Third Mission Committee of the Department of Electrical and Information Engineering since October 2018.

Member of the management board of the Department of Electrical and Electronic Engineering during a three-year period.

Place and date:

Bari, 30 May 2019

A handwritten signature in blue ink, appearing to read "Cristoforo" followed by a surname that is partially obscured and difficult to decipher.