

## CURRICULUM VITAE

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**Date of birth:** [REDACTED]

### Education

December 1997: Master Degree in Electronic Engineering (110/110 cum laude), Polytechnic of Turin. Master Degree dissertation title: "Microsensors study: analysis, design and characterization of microstructures". The work was related to the analysis of the state-of-the-art in the Microsensors and Microsystems fields, the design of a Bulk Micromachining CMOS-compatible chip with some microstructures (cantilevers, membranes, ...) for the transduction of optical and mechanical signals. The chip was produced through the Multi Wafer Service offered by TIMA-CMP (Grenoble, France) and it was tested and characterised at the Centro Ricerche Fiat (Turin).

2001-2003: PhD Degree in Electronic Devices at the Polytechnic of Turin. PhD dissertation title: "Development of silicon and silicon carbide-based micro-electromechanical systems "

### Research Experiences

February 1998 – June 1998: Fellowship ("Study and development of a microsystem for biomedical applications") at the VLSI Laboratory of the Electronic Department of the Polytechnic of Turin. Main topic: development of a microsystem for the DNA analysis, based on the chemiluminescent readout approach.

January 1999 – December 1999: I.N.F.M. Fellowship about "Silicon image and position sensors with CMOS/LDMOS technology". Main topic: design, fabrication and characterization of CMOS/LDMOS-based photosensors to be integrated on ink-jet printing heads for auto-alignment purposes. Industrial Collaboration with Olivetti I-Jet (formerly Baltea Disk) in Arnad (Aosta).

January 2000 – October 2002: PhD in Electronic Devices at Department of Physics of the Polytechnic of Turin. Acquisition of competences in the field of the technologies for the manufacturing of silicon and silicon-carbide based microsensors. Director of the setting-up activities of the Chilab – Materials and Microsystems Laboratory of Chivasso (Turin), belonging to the Polytechnic of Turin. Design of the cleanroom layout (Fed. St. 209 class 100 and 1000) and related services. He is among the founders of the Lab (<http://www.chilab.polito.it/>).

November 2002 – January 2004: I.N.F.M. Fellowship at the Department of Physics of the Polytechnic of Turin: continuity of duties.

February 2004 – June 2010: I.N.F.M.-C.N.R. Researcher at the Polytechnic of Turin (confirmed since 16<sup>th</sup> February 2009). Research activity in the development of microelectronic and MEMS technologies, mainly focused on the biomedical and industrial sensors fields. Management and scientific direction of several public and private projects (industrial collaborations with Olivetti I-Jet, Varian Vacuum Technologies, Ribes Ricerche, Biodiversity, Inpeco, Tethis, Eni E&P, Pegaso, Tecnomare, Nanovector, ...). He is responsible for the cleanroom at the Chilab and for the entire

Technological Division of the Lab. He is among the founders of the Latemar Laboratory (Laboratorio di Tecnologie Elettrobiochimiche Miniaturizzate per l'Analisi e la Ricerca: [www.latemar.polito.it](http://www.latemar.polito.it)), a Centre of Excellence funded by MIUR (Italian Ministry for Education, University and Research) grants - FIRB 2003-2004 - for public/private structures involved in research fields characterized by strategic value. It is a distributed laboratory which joins and coordinates Centres of Excellence in the basic research devoted to the development of micro and nano-devices and sensors for genomics and proteomics, together with extremely qualified R&D Centers of private Companies. In the framework of Latemar, he is responsible of the Research Line for the development of Polymeric Lab-on-a-chip for the DNA analysis and he is also responsible for the entire Technological Division of the Lab (together with L. Cognolato, Olivetti I-Jet).

July 2010 – November 2020: C.N.R.-I.M.E.M. (Institute for the Materials for Electronics and Magnetism, Parma site) Researcher, located at the Polytechnic of Turin. Continuity of duties.

Since December 2020: Associate Professor at the Department of Applied Science and Technology (DISAT) of the Politecnico di Torino (Scientific Disciplinary Sector FIS/03 Physics of Matter).

Between February and December 2012 he was IIT (Italian Institute of Technology) affiliate at the CSHR@PoliTo (Center for Space Human Robotics @ Politecnico di Torino) site.

He is referee for the *Journal of Micromechanics and Microengineering*, *Nanotechnology* and *Semiconductor Science and Technology* published by the Institute of Physics (IOP) and for *Microelectronic Engineering* published by Elsevier. Since 2019 he is Review Editor for *Frontiers in Nanotechnology*. Guest Editor of Special Issues "2D Nanomaterials Processing and Integration in Miniaturized Devices" (2019-20), "2D Nanomaterials Processing and Integration in Miniaturized Devices, Volume II" (2020-21) and "Advancements and Applications in Polymeric 3D Printing" (2020-21) for the journal *Micromachines* (MDPI).

Since January 2017 he is member of the Board of Directors of AIV – Associazione Italiana di Scienza e Tecnologia (Italian Association of Science and Technology)

Since 2017 he is projects reviewer for the Agence Nationale de la Recherche (ANR - French National Research Agency) and for the Fondo Crescita Sostenibile of MISE (Italian Ministry of Economic Development).

Since 2019 he has been an invited member of the Italian Association for Industrial Research (AIRI) for the "Networking, Associative Marketing and Communication" Working Group.

He has written 2 technical and market analysis reports for the Trustech s.r.l. Company, about "Nanotechnologies for Textile Applications" e "Batteries for Motive Applications".

From September 2014 to December 2017 he was Board Member of the company Trustech s.r.l., engaged in research and development and technology transfer in the field of micro and nanotechnologies.

He was:

- invited speaker to the 2005 Nanoforum edition (Milan, "Nanotechnologies for the Biomedicine" Session);
- invited speaker to the 2006 Nanoforum edition (Milan, "Nanotechnologies for the Medicine" Session);
- chairman for the 2007 Nanoforum edition for the "Nanomedicine I" Session;

- Member of the Program Committee for the 1<sup>st</sup> ANIS (Alp Nanobio International School) edition, Sterzing (BZ), 26-30th January 2009 and lecture contribution "Implementation of DNA Analysis on Silicon- and Polymer-Based Modular LOCs"
- lecturer for the Tutorial about "Nanomedicine" for the 2009 Nanoforum edition;
- invited lecturer to the 1<sup>st</sup> Nanobiotechnologies Summer School (September 2009) organised by University of Turin, with a lecture about Lab-on-a-Chip technology and related applications;
- invited lecturer to the MIGAS 2010, 13<sup>th</sup> Edition of the International Summer School on Advanced Microelectronics (Autrans, Grenoble, France), with a lecture about MEMS Devices
- member of the International Program Committee of the 36<sup>th</sup> International Conference on Micro & Nano Engineering (MNE2010), Genoa (Italy) 19-22 September 2010.
- member of the International Program Committee of the 37<sup>th</sup> International Conference on Micro & Nano Engineering (MNE2011), Berlin (Germany) 19-23 September 2011.
- invited speaker to the 2011 NanoTechItaly edition (Venice, 23-25 November, "Health and Life Science - Nanomedicine" Session).
- invited lecturer to the 1<sup>st</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, 2012), with a lecture about Introduction to Microsystems
- invited lecturer to the 2<sup>nd</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, 2013), with a lecture about Introduction to Microsystems
- invited lecturer (December 2013) for the II level Master "Formazione di ricercatori altamente qualificati nel campo della genomica funzionale dei microrganismi di interesse diagnostico multiparametrico clinico" ("Training of highly qualified researchers in the field of functional genomics of microorganisms of clinical multiparameter diagnostic interest"), in the framework of the Project PON01\_02589 "Sviluppo di una piattaforma tecnologica multiplex per diagnostica molecolare, portatile ed automatizzata, basata sulla logica strumentale del Lab-on-chip, in grado di consentire applicazioni multiparametriche in campo infettivologico" (MicroMap) ("Development of a technological platform for multiplex, portable, automated molecular diagnostics, based on the instrumental scheme of the Lab-on-chip, allowing for multiparametric applications in the field of infectious diseases")
- invited lecturer to the 3<sup>rd</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, 2014), with a lecture about Introduction to Microsystems
- invited lecturer (September 2014) for the Training Program in the Framework of the Project "Infrastruttura per Tecnologie bio-MEMS di Sensing Avanzato per Monitoraggio e Diagnostica Ambientale e Alimentare (Infrastructure for Advanced Sensing bio-MEMS Technologies for Environmental and Agri-Food Monitoring and Diagnostics) (PON-ITEM)". Lectures about "MEMS Technologies" (40 hours)
- invited lecturer to the 4<sup>th</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, 2015), with a lecture about Introduction to Microsystems
- Member of the Scientific Committee for the XXIII AIV Conference (Florence, 5-7 April 2017)
- invited lecturer to the 6<sup>th</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, June 2017), with a lecture about Introduction to Microsystems
- invited lecturer to the 7<sup>th</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, July 2018), with a lecture about Introduction to Microsystems

- Member of the Scientific Committee for the XXIV AIV Conference (Giardini Naxos, 7-10 May 2018)
- member of the International Technical Program Committee of the 46<sup>th</sup> International Conference on Micro & Nano Engineering (MNE2020), Leuven (Belgium) 14-18 September 2020
- Member of the Scientific Committee for the Workshop “Advanced nanotechnological approaches to translational medicine”, organized by Università Magna Grecia (Catanzaro, Italy) in collaboration with Politecnico di Torino and Bruno Kessler Foundation (Trento, Italy), June 17<sup>th</sup>, 2019
- invited lecturer to the 8<sup>th</sup> Edition of the Phelma Minatec International Summer School on Nanotechnology (Grenoble, France, July 2019), with a lecture about Introduction to Microsystems
- Program Co-Chair of the 47<sup>th</sup> International Conference on Micro & Nano Engineering (MNE2021), Turin (Italy) 20-23 September 2021

## Didactic Experiences

Several didactic activities at the Polytechnic of Turin, also in English, for Bachelor and Master Degrees and International Master Degrees:

- A.A 2000/2001:
  - Exercitations for *General Physics II* and *General Physics Laboratory* at the Polytechnic of Turin.
  - Tutoring for *Physics I* and *Physics II* at the Polytechnic of Turin (Alessandria site).
- A.A 2001/2002:
  - Exercitations for *General Physics II* and *General Physics Laboratory* at the Polytechnic of Turin.
  - Tutoring for *Physics I* at the Polytechnic of Turin (Alessandria site).
- A.A 2002/2003:
  - Lecturer for *General Physics I* at the Polytechnic of Turin (Ivrea site).
  - Tutoring for *Physics I* at the Polytechnic of Turin (Alessandria site).
- A.A 2003/2004:
  - Lecturer for *General Physics I* at the Polytechnic of Turin (Ivrea site).
  - Tutoring for *Physics I* and *Physics II* at the Polytechnic of Turin (Alessandria site).
  - Exercitations for *Biomechanical Constructions* at the Polytechnic of Turin.
- A.A 2004/2005:
  - Lecturer for *CAD for microsystems* and *Microsystems Basics 2* at the INPG of Grenoble (France); Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems” (<http://www.master-nanotech.com/>), managed through the collaboration between Polytechnic of Turin, INPG (Grenoble, France) and EPFL (Lausanne, Switzerland). Participation to the Jury for the validation of the semester at the INPG.
  - Lecturer for *Devices and Technologies for Microsystems*, *Microsystems Basics I* (English), *Physics of technological processes* (English) and *Introduction to the Nanotechnologies* at the Polytechnic of Turin.
- A.A 2005/2006:
  - Lecturer for *Physics of technological processes and microsystems*, *CAD for microsystems* e *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in

- “Micro and Nanotechnologies for Integrated Systems”. Participation to the Jury for the validation of the semester at the Minatec.
  - Lecturer for *Devices and Technologies for Microsystems* and *Introduction to the Nanotechnologies* at the Polytechnic of Turin.
  - Lectures about MEMS and NEMS for biological and genomic applications for the 1st Level Master in *Biotechnological applications of nanotechnologies*, managed by the Chilab – Materials and Microsystems Laboratory of the Polytechnic of Turin, the Eastern Piedmont University (Novara site) and Edo Tempia Foundation.
- A.A 2006/2007:
  - Lecturer for *Physics of technological processes and microsystems, CAD for microsystems e Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”. Participation to the Jury for the validation of the semester at the Minatec.
  - Lecturer for *Devices and Technologies for Microsystems* at the Polytechnic of Turin.
  - Lectures about MEMS and NEMS technologies for biological and genomic applications for the 2<sup>nd</sup> Level Master in *Elements of design in micro and nano-technologies for bioartificial systems*, managed by Polytechnic of Turin.
- A.A 2007/2008:
  - Lecturer for *Physics of technological processes and microsystems, CAD for microsystems* and *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Devices and Technologies for Microsystems* at the Polytechnic of Turin.
- A.A 2008/2009:
  - Lecturer for *Physics of technological processes and Microsystems* and *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Devices and Technologies for Microsystems* at the Polytechnic of Turin.
  - Lectures about “MEMS and Sensors”, for the Ribes Ricerche s.r.l. Company.
- A.A 2009/2010:
  - Lecturer for *Physics of technological processes and Microsystems* and *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Devices and Technologies for Microsystems* at the Polytechnic of Turin.
- A.A 2010/2011:
  - Lecturer for *Physics of technological processes and Microsystems* and *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Devices and Technologies for Microsystems* at the Polytechnic of Turin.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
- A.A 2011/2012:
  - Lecturer for *Physics of technological processes and Microsystems* and *Microsystems Basics* at the Polytechnic of Turin and at the Minatec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.

- Participation to the Project “Scienza Attiva” managed by Centro InterUniversitario Agorà Scienza of Turin, as a member of the experts panel and composer of didactic material for the high schools about the topic “NanoDiagnostics”
- A.A 2012/2013:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
  - Participation to the Project “Scienza Attiva” managed by Centro InterUniversitario Agorà Scienza of Turin, as a member of the experts panel and composer of didactic material for the high schools about the topic “NanoDiagnostics & Drug Delivery”
- A.A 2013/2014:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
  - Participation to the Project “Scienza Attiva” managed by Centro InterUniversitario Agorà Scienza of Turin, as a member of the experts panel.
- A.A 2014/2015:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
- A.A 2015/2016:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
- A.A 2016/2017:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
- A.A 2017/2018:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin.
- A.A 2018/2019:

- Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
- Lecturer for *Physics of technological processes for Micro and Nanosystems* at the Polytechnic of Turin
- A.A 2019/2020:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Microelectronics and Micro-Nanosystems Technologies* at the Polytechnic of Turin
- A.A 2020/2021:
  - Lecturer for *Physics of technological processes* and *Microsystems Basics* at the Polytechnic of Turin and at the Minattec of Grenoble (France). Lectures in English for the International Master Degree in “Micro and Nanotechnologies for Integrated Systems”.
  - Lecturer for *Microelectronics and Micro-Nanosystems Technologies* at the Polytechnic of Turin

Moreover, since 2005 he has been Tutor or co-Tutor of more than 140 Master Degree Theses for the Master Degree Courses of Electronic Engineering, Physics Engineering, Materials Engineering, Biomedical Engineering, and Nanotechnologies for Integrated Systems and tutor or co-tutor of 8 PhD Theses in Electronics and Electronic Devices.

As an Invited Professor, he belongs to the College of Electronic Engineering, Telecommunications and Physics (ETF).

Since 2014, in charge of the Biomedical Engineering Bachelor students’ internships (Politecnico di Torino), with the function of Corporate Tutor for the Chilab Laboratory.

From 2004 to 2008 Member of the end-of-semester validation Jury at INPG Grenoble for the International Master Degree in Micro- and nano-technologies for ICT (Master in Micro and Nanotechnologies for Integrated Systems, POLITO, INP Grenoble, EPF Lausanne, <http://www.master-nanotech.com/>).

Since 2016 in charge of the Evaluation Board for the applications of national and international students to the International Master Degree in Micro- and nano-technologies for ICT.

### **Publications:**

- “Micromachined silicon based cooling loop designed for general purpose devices”, M. Cocuzza, V. Perotto, C.F. Pirri, L. Scaltrito, E. Mezzetti, F. Giorgis, D. Botta, R. Gerbaldo, G. Ghigo, L. Gozzellino, B. Minetti, M. Negro. Proceedings of the Microgravity and Space Station Utilization, Vol.2, N. 2-3-4, June-December 2001
- “Silicon carbide for application in MEMS technology and sensors”, E. Bennici, M. Cocuzza, F. Giorgis, P. Mandracci, C.F. Pirri, S.Porro, C. Ricciardi, D. Bich, V. Guglielmetti, P. Schina, A. Taroni, D. Crescini. Proceedings of the II National Meeting on Silicon Carbide, Parma, 18-19 Mach (2002)
- “Influence on non-crystalline substrates on ECR-PECVD growth of SiC films”, C. Ricciardi, P. Mandracci, C.F. Pirri, M. Cocuzza, D. Bich, V. Guglielmetti and G. Barucca. Proceedings of the II National Meeting on Silicon Carbide, Parma, 18-19 Mach (2002)

- "Structural and electrical characterization of epitaxial 4H-SiC layers for power electronic device power applications", L. Scaltrito, S. Porro, M. Cocuzza, F. Giorgis, C.F. Pirri, P. Mandracci, C. Ricciardi, S. Ferrero, C. Sgorlon, G. Richieri, L. Merlin, A. Castaldini, A. Cavallini, L. Polenta. *Materials Science and Engineering B102* (2003) 298-303
- "Correlation between defects and electrical properties of 4H-SiC based Schottky diodes", L. Scaltrito, S. Porro, M. Cocuzza, F. Giorgis, C.F. Pirri, P. Mandracci, C. Ricciardi, S. Ferrero, C. Sgorlon, G. Richieri, L. Merlin, A. Castaldini, A. Cavallini. *Materials Science Forums* 433-436 (2003) 455-458
- "Characterization of polycrystalline SiC layers grown by ECR-PECVD for micro-electro-mechanical systems", C. Ricciardi, E. Bennici, M. Cocuzza, P. Mandracci, D. Bich, V. Guglielmetti, G. Barucca. *Thin Solid Film* 427 (2003) 187-190
- "Surface analysis and defect characterization of 4H-SiC wafers for power electronic device applications", L. Scaltrito, G. Fanchini, M. Cocuzza, F. Giorgis, C.F. Pirri, P. Mandracci, C. Ricciardi, S. Ferrero, C. Sgorlon, G. Richieri, L. Merlin. *Diamond and related materials* - 12 (2003) 1224-1226
- "Characterization of polycrystalline 3C( $\beta$ )-SiC thin films for MEMS and pressure sensors application", A. Cavallini, M. Rossi, M. Cocuzza, C. Ricciardi, *ASDAM 2004 - Conference Proceedings, 5th International Conference on Semiconductor Devices and Microsystems, Smolenics Castle, Slovakia, 17 October 2004 - 21 October 2004*, pp. 25-28, ISBN: 0780385357;978-078038535-1
- "Characterization of electrical contacts on polycrystalline 3C-SiC thin films", A. Castaldini, A. Cavallini, M. Rossi, M. Cocuzza, C. Ricciardi, *Materials Science Forum Vols. 483-485* (2005) pp. 745-748
- "Fabrication of quartz diaphragms for helium leak detection", M. Cocuzza, L. Scaltrito, S. Guastella, L. Giovanola, S. Vittozzi, R. Carboneri, *Vacuum Vol. 80/5* (2006) pp. 432-437
- "Silicon resonant microcantilevers for absolute pressure measurement" S. Bianco, M. Cocuzza, R. Correale, P. Schina, A. Merialdo, D. Bich, L. Scaltrito, C.F. Pirri, G. Piacenza, E. Giuri, S. Ferrero, *J. Vac. Sci. Technol. B* 24(4), Jul/Aug 2006, pp. 1803-1809
- "Sensoristica a base micro e nano oscillatori meccanici" C. Ricciardi, S. Bianco, G. Canavese, E. Celasco, G. Cicero, M. Cocuzza, E. Descrovi, S. Fiorilli, E. Giuri, S. Marasso, M. Quaglio, P. Rivolo, A. Ricci, F. Pirri, L. Napione, F. Bussolino, D. Bich, A. Merialdo, P. Schina, R. Correale, *Newsletter Nanotec IT*, Giugno 2006, pp.10-14
- "Polymeric mask protection for alternative KOH silicon wet etching", G. Canavese, S. L. Marasso, M. Quaglio, M. Cocuzza, C. Ricciardi and C. F. Pirri, *Journal of Micromechanics and Microengineering* 17 (2007) pp.1387-1393
- "APEX protocol implementation on a Lab-on-a-chip for SNPs detection", S. Marasso, G. Canavese, S. Lobartolo, M. Cocuzza, A. Ferrarini, E. Giuri, D. Perrone, M. Quaglio, A. Ricci, I. Vallini, *Microelectronics Engineering*, 85 (2008), 1326-1329 (doi:10.1016/j.mee.2007.12.024)
- "Evaluation of different PDMS interconnection solutions for silicon, pyrex and COC microfluidic chips", G. Canavese, E. Giuri, S.L. Marasso, D. Perrone, M. Quaglio, M. Cocuzza, C.F. Pirri, *J. Micromech. Microeng.*, 18 (2008) 055012
- "Silicon laterally resonant microcantilevers for absolute pressure measurement with integrated actuation and readout", M. Cocuzza, R. Correale, P. Schina, A. Merialdo, D. Bich, L. Scaltrito, E. Giuri, A. Ricci, I. Ferrante, *J. Vac. Sci. Technol. B* 26(2), Mar/Apr 2008, pp.541-550
- "Silicon microcantilevers with different actuation-readout schemes for absolute pressure measurement", S. Bianco, M. Cocuzza, I. Ferrante, E. Giuri, C. F. Pirri, A. Ricci, L. Scaltrito, D. Bich, A. Merialdo, P. Schina and R. Correale, *Journal of Physics: Conference Series* 100 (2008), 092008
- "Electromigration feedback controlled Nanogaps fabrication based on MPTMS adhesion layer", P. Civera, G. Piccinini, D. Demarchi, M. Cocuzza, D. Perrone, *Proceedings - IEEE International Workshop on Design and Test of Nano Devices, Circuits and Systems (NDCS 2008)*. Boston,

- Massachusetts, USA. 29-30 September 2008. (pp. 11-14). ISBN/ISSN: 978-0-7695-3379-7. doi: 10.1109/NDCS.2008.12LOS ALAMITOS, CA: IEEE Computer Society (UNITED STATES).
- "Nanogap fabrication for molecular electronics", P. Civera, G. Piccinini, D. Demarchi, M. Cocuzza, D. Perrone, in: Book of Abstracts. Transalp'Nano 2008. Lyon. 27-29 October 2008. (pp. 100-101).
  - "Electrothermal modelling for EIBJ nanogap fabrication", P. Civera, G. Piccinini, D. Demarchi, M. Cocuzza, D. Perrone, *Electrochimica Acta*, 54 (2009), 6003-6009, doi:10.1016/j.electacta.2009.02.070
  - "A Multilevel Lab On Chip platform for DNA analysis", S. L. Marasso, E. Giuri, G. Canavese, R. Castagna, M. Quaglio, I. Ferrante, D. Perrone, M. Cocuzza, *Biomedical Microdevices*, Vol. 13, Issue 1 (2011), pag. 19 (doi: 10.1007/s10544-010-9467-5)
  - "Elastomeric nanocomposite based on Carbon Nanotubes for Polymerase Chain Reaction device", M. Quaglio, S. Bianco, R. Castagna, M. Cocuzza, C.F. Pirri, *Microelectronic Engineering*, Vol. 88(8), August 2011, Pages 1860-1863, doi:10.1016/j.mee.2011.01.032
  - "Cost efficient master fabrication process on copper substrates", S. Marasso, G. Canavese, M. Cocuzza, *Microelectronic Engineering*, Vol. 88(8), August 2011, Pages 2322-2324, doi:10.1016/j.mee.2011.02.023
  - "Piezoelectrically actuated MEMS microswitches for high current applications", D. Balma, A. Lamberti, S. L. Marasso, D. Perrone, M. Quaglio, G. Canavese, S. Bianco, M. Cocuzza, *Microelectronic Engineering*, Vol. 88(8), August 2011, Pages 2208-2210, doi:10.1016/j.mee.2011.02.097
  - "Solid phase DNA extraction on PDMS and direct amplification", L. Pasquardini, C. Potrich, M. Quaglio, A. Lamberti, S. Guastella, L. Lunelli, M. Cocuzza, L. Vanzetti, C. F. Pirri, C. Pederzoli, *Lab Chip*, 2011, 11 (23), 4029 - 4035, DOI: 10.1039/c1lc20371a
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### Patents:

- Italian patent deposited (28/09/2009): n. TO2009A000735 (Assignee: Polytechnic of Turin and CNR-INFM) "SISTEMA A VENTOSA PER SIGILLATURA REVERSIBILE DI DISPOSITIVI MICROFLUIDICI POLIMERICI ELASTOMERICI" ("Suction cap system for the reversible sealing of elastomeric microfluidic devices").
- Italian patent deposited (25/11/2009): n. TO2009A000915 (Assignee: Polytechnic of Turin, CNR-INFM, University of Trieste, Biodiversity S.p.A.) "DISPOSITIVO MICROFLUIDICO,

PARTICOLARMENTE PER LA RIVELAZIONE DI VARIANTI GENICHE " ("Microfluidic device, namely for the detection of genetic mutations").

- Italian patent deposited (16/03/2010): n. TO2010A000196 (Assignee: Polytechnic of Turin and CNR-INFM) "DISPOSITIVI MICROFLUIDICI PER APPLICAZIONE IN CAMPO BIOMEDICALE, FABBRICATI IN MATERIALE POLIMERICO COMPOSITO" ("Microfluidic devices for application in the biomedical field, made of composite polymeric materials").
- Italian patent deposited (29/10/2010): n. TO2010A000865 (Assignee: Polytechnic of Turin, Bruno Kessler Foundation and Matteo Cocuzza) "PURIFICAZIONE ED AMPLIFICAZIONE DI ACIDI NUCLEICI IN UN DISPOSITIVO MICROFLUIDICO COMPRENDENTE SUPERFICI DI POLIDIMETILSILOSSANO" ("Nucleic Acids purification and amplification in a microfluidic device with PDMS surfaces").
- Italian patent deposited (22/3/2017): n. IT 102017000031234 (Assignee: CNR) "Transistor tridimensionale del tipo Organic ElectroChemical Transistor (OECT) e relativo metodo di fabbricazione " ("3D Organic Electrochemical Transistor and related fabrication method").
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