

**PERSONAL INFORMATION** Mario Caironi

  
  


Sex | | Date of birth 1978 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

**WORK EXPERIENCE**

- 2019 - today **Senior Scientist, Tenured**  
 Center for Nano Science and Technology, Istituto Italiano di Tecnologia, Milan, Italy  
 ▪ Principal Investigator of the "Printed and Molecular Electronics" research line  
Research
- 2017-2019 **Tenure Track Researcher, Stage 2**  
 Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Milan, Italy  
 ▪ Principal Investigator of the "Printed and Molecular Electronics" research line  
Research
- 2014-2017 **Tenure Track Researcher, Stage 1**  
 Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Milan, Italy  
 Principal Investigator of the "Printed and Molecular Electronics" research line  
Research
- 2010-2014 **Team Leader**  
 Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Milan, Italy  
 New laboratories setup, initiation of new research lines in printed electronics  
Research
- 2007-2010 **Post-doctoral Research Associate**  
 University of Cambridge, UK  
 Downscaled Printed Electronics, Charge Transport in Organic Semiconductors  
Research

**EDUCATION AND TRAINING**

- 2004-2007 **PhD in Information Technology** *Awarded "cum laude"*  
 Department of Electronics and Information, Politecnico di Milano, Italy  
 ▪ PhD Thesis title: "Photodetectors and electrical bistable memory devices based on organic semiconductors".
- 1997-2003 **Master in Electronic Engineering** *100/100*  
 Department of Electronics and Information, Politecnico di Milano, Italy

1992-1997   ▪ Analog and Digital Electronics, Physics, Mathematics  
**High School Diploma**  
 Liceo Scientifico "L. Mascheroni", Bergamo, IT  
 ▪ Science and Humanities

60/60 "cum laude"

**PERSONAL SKILLS**

Mother tongue(s) Italian

Other language(s) English, fluent

Job-related skills Competent in Printed Electronics, Organic Electronics, Sustainable Electronics, Edible Electronics, Sensors, Sustainable Materials, Organic Thermoelectric materials and generators

**ADDITIONAL INFORMATION**

Academic Appointments

2018 – 2024 Co-organizer of, and lecturer within, the PhD Course "*Organic Electronics: Principles, devices and applications*"  
 PhD School in Information Technology, Politecnico di Milano (IT)

2014 – 2024 Invited lecturer, seminars in the "*Physics of Photovoltaics*" course, Prof. G. Lanzani  
 Physics Engineering, Politecnico di Milano, Milano (IT)

2004 – 2010 Invited lecturer, seminars in the "*Polymeric Materials for Electronic Devices and Circuits*" course, Prof. G. Ghione - Physics Engineering, Politecnico di Torino, Turin (IT)

2004 – 2007 On-line teaching assistant, "*Electrotechnics A*" on-line course, Prof. A. Storti-Gajani  
 Information Engineering, Politecnico di Milano, Lecco (IT)

2004 – 2006 Lab assistant, demonstrations for "*Analog Electronics*" and "*Fundamentals of Electronics*" courses, Prof. M. Sampietro and C. Guazzoni  
 Electronics Engineering, Politecnico di Milano, Milan (IT)

2004 – 2006 Tutor, "*Orcad PSpice and Microcontrollers*" practical course, Prof. F. Zappa  
 Electronics Engineering, Politecnico di Milano, Milan (IT)

2003 – 2006 Teaching assistant, "*Fundamentals of Electronics*" course, Prof. C. Guazzoni  
 Electronics Engineering, Politecnico di Milano, Milan (IT)

Scientific Service ORGANISATION OF SCIENTIFIC MEETINGS

2024 E-MRS Spring Meeting 2024, Symposium T "Doping in organic semiconductors: fundamentals, materials and applications" – Strasbourg May 27-31, 2024

2021 MRS Fall Meeting 2021, Symposium EQ11 "Materials, Processes and Device Structures Enabling Next-Generation High-Frequency Flexible Electronics" – Boston (USA), November 8-December 3, 2021

2021 E-MRS Spring Meeting 2021, Symposium D "Organic semiconductors for energy and electronics: from fundamental properties to devices" – Online, June 1-3, 2021

2018 ORBITALY 2018, International Conference on Organic Bioelectronics – Milano (IT), October 17-19, 2018

2018 CIMTEC 2018, 8th Forum on New Materials, Symposium FA "Materials Issues in Flexible and Stretchable Electronics" - Montecatini, June 10-14, 2018

2018 MRS Spring Meeting 2018, Symposium EP08 "Advanced Polymer Semiconductors – Key Properties and High-Performance Electronics" – Phoenix (USA), April 2-6, 2018

2017 HEROIC Workshop, ERC project meeting with 16 invited international experts, Milan, November 6-8, 2017

2017 E-MRS Spring Meeting 2017, Symposium L "New materials for organic electronics: from synthesis to processing, characterization and device physics" – Strasbourg May 22-26, 2017

2016 CMD26, European Physical Society: Condensed Matter Division, Mini-Symposium "Thermoelectric materials" - Groningen, September 5-6, 2016

2012 E-MRS Spring Meeting 2012, Symposium H "Organic and Hybrid Materials for Flexible Electronics: Properties and Applications" - Strasbourg May 14-18, 2012

OTHER COMMISSIONS OF TRUST

2023 – present Editor of "IEEE Journal of Flexible Electronics"

2022 – 2023 Projects reviewer for European Innovation Council (EIC), Pathfinder

2022 – 2023 Projects reviewer for the European Research Council (ERC), Starting and Consolidator Grants

2023 External PhD Examiner, Shubham Tanwar, Universitat de Barcelona, Spain

2023 External PhD Examiner, Emre Yarali, KAUST, Saudi Arabia

2022 External PhD Examiner, Huda Ahli, Imperial College, London, UK

	2021 – present	Editor of "IEEE Transactions on Electron Devices"
	2020 – 2021	Projects Reviewer for Cassa per i servizi energetici e ambientali (CSEA)
	2020	Projects Reviewer for King Abdullah University of Science and Technology (KAUST)
	2020	External PhD Examiner, Prabir Mahato, INSA LYON, France
	2019	Projects Reviewer for Netherlands Organisation for Scientific Research (NWO)
	2019	External PhD Examiner, Marc-Antoine Stoeckel, École Doctorale Des Sciences Chimiques, University of Strasbourg, France
	2019	Internal Member of PhD Examination Committee, Politecnico di Milano, Milan (IT)
	2018	Projects Reviewer for the Czech Science Foundation (GACR)
	2018	Projects Reviewer for the French National Research Agency (ANR), "Appel à projets générique 2018 / Projets de recherche collaborative"
	2017	Advisor for the company "Energy Everywhere Inc.", US
	2017	External PhD Examiner, Bernhard Döring, Departament de Física Facultat de Ciències, Universitat Autònoma de Barcelona, Spain
	2017	PhD Thesis Remote Reviewer, Student Silvia Conti, Università degli Studi di Genova, Italy
	2017	Guest editor for a special issue in "Advanced Electronic Materials", following E-MRS 2017 Symposium L
	2017	Project reviewer for Severo Ochoa FUNMAT, Frontier Interdisciplinary Projects 2017 Call (Spain)
	2016 – 2017	Review Committee Member for the Project "Polymer-wrapped Carbon Nanotubes for high performance field effect transistors" Technology Foundation STW, The Netherlands
	2016 – 2017	Guest Editor, special issue "Flexible Electronics" in "IEEE Transactions on Electron Devices"
	2016 – 2017	Guest Editor, special issue "Organic Photodetectors" in "Semiconductors Science and Technology" (IoP)
	2016	PhD Thesis Remote Reviewer, Student Nam-Koo Kim, Department of Nanobio Materials & Electronics, Gwangju Institute of Science & Technology, Korea
	2014 – 2015	Guest Editor, special issue "Printed Electronics" in "Semiconductors Science and Technology" (IoP)
	2015	Internal Member of PhD Examination Committee, Politecnico di Milano, Milan (IT)
	2015	Project Reviewer for the Estonian Research Council, Starting Grant
	2015	Project Reviewer for French National Research Agency (ANR), Call CE24, 2015, 7th Societal Challenge "Information and Communication Society"
	2015	Editor of the Book "Flexible and Large Area Electronics" Wiley, ISBN: 978-3-527-33639-5
	2014	Member of International Advisory Committee, 6th International Symposium, Technologies for Polymer Electronics, TPE 14, Ilmenau, Germany, May 20 – 22, 2014
	2013	Guest editor for a special issue in "Advanced Materials" Vol.: 25, Pages: 4208-4209
	2013	Guest editor for "Journal for Nanoscience and Nanotechnology" Vol.: 13, Pages: 5134-5135
	2013	Project reviewer for French National Research Agency (ANR) - JCJC SIMI 3
Professional Societies	2018 - 2020	Member of IEEE EDS Flexible Electronics and Displays Committee
	2016 - 2017	Member of IEEE EDS Organic Electronics Committee
	2001 - 2003	IEEE junior member
Regular Reviewer for Journals		ACS Applied Materials & Interfaces, ACS Energy Letters, ACS Nano, Advanced Materials, Advanced Electronic Materials, Advanced Functional Materials, Chemical Reviews, Journal of Materials Chemistry C, Nature Communications, Nature Photonics, Nature Materials
Prized and Qualifications	2023	Special nomination in TIME Magazine Best Inventions – Edible Battery
	2018	2 Special Prizes by Chamber of Commerce and Deloitte, at "Startup Lombardia" Project: "FLEEP"
	2013	Italian associate professorship habilitation "Abilitazione Scientifica Nazionale" for Experimental Physics, category 02B1
	2011	First prize at "Startup Milano-Lombardia 2011" (Business Plan Competition) Clean Technologies and Agrofood Section, Project: "SolarPrint"
Patents	2022	Patent Filing IT 102022000008993 – May 3, 2022 L. Lamanna, P. Cataldi, M. CAIRONI Dispositivo degradabile per il rilascio passivo e tracciabile di una sostanza PCT/IB2023/054352 – April 27, 2023
	2021	Patent Filing IT 102021000029498 – November 22, 2021 P. Cataldi, M. CAIRONI, L. Lamanna Composizione edibile elettricamente conduttiva PCT/IB2022/060201 – October 24, 2022
	2019	Patent Filing IT 102019000009627 – June 6, 2019 M. CAIRONI, M. Massetti "Microgeneratore termoelettrico flessibile e relativo metodo di produzione"
	2015	Patent Filing IT 102015000021900 - June 9, 2015 A. Iacchetti, M. CAIRONI, M. Carvelli, M. Garbugli "Circuit and Process for supplying a load through a photovoltaic Device and a Battery"

		PCT/EP2016/063084 - June 9, 2016 Licensed to "Ribes Tech s.r.l." in 2016
	2015	Patent Filing IT 102015000016245 - May 20, 2015 M. CAIRONI, M. Carvelli, A. Iacchetti, G. Dell'Erba "Packaging Label and Method for Labelling a Package" PCT/EP2016/061324 - May 19, 2016 Licensed to "Ribes Tech s.r.l." in 2016
	2012	Nationalization stage November – Decemeber 2017: EP, US, CA, CN, IN, KR Patent Filing IT TO2012A000826, 24 September 2012 M. CAIRONI, A. Petrozza, L. Caranzi, "Self-assembling molecular photodetector" PCT/IB2013/058776, 23 September 2013
	2010	Granted Patent WO2011015847-A; EP2462638-A1; US2012273788-A1; RU2012108116-A H. Siringhaus, M. CAIRONI, E. Gili, "Printed Electronic Device" Licensed to "Plastic Logic Ltd." in 2012
Start-ups Founded	2019	FLEEP Technologies srl Founding Member, May 9, 2019 Mission: commercialize printed microelectronic circuits and systems <i>Number of employees to date: 6</i> <a href="https://www.fleeptech.com/">https://www.fleeptech.com/</a>
	2016	RIBES TECH srl Founding Member, March 4, 2016 Mission: commercialize cheap indoor photovoltaic chargers for distributed electronics, sensors networks, internet of things, home and industrial automation <i>Number of employees to date: 5</i> <a href="http://www.ribestech.it/">http://www.ribestech.it/</a> Resulting from the Technology Transfer project "SolarPrint" funded by OMET s.r.l. led by M. Caironi at IIT from 2011 to 2015.

Publications

Mario Caironi has published more than **200 peer-reviewed journal articles**. He has an **h-index of 49**, and his **total number of citations** is more than **11700 (Scholar, January 2023)**.  
The [complete list of his International Publications](https://scholar.google.it/citations?user=f3suRUKAAAAJ&hl=en) can be found here:  
<https://scholar.google.it/citations?user=f3suRUKAAAAJ&hl=en>