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## Curriculum Vitae Dr. Marta Parazzini

### PERSONAL DATA

Name: Marta Parazzini  
Date of birth: [REDACTED]  
Nationality: [REDACTED]  
Email: marta.parazzini@cnr.it

### EDUCATION

05/2004 Ph.D. degree in Bioengineering and European Doctorate at the Polytechnic of Milan, Milan, Italy. PhD Thesis: "Interactions between radio frequency electromagnetic fields produced by mobile phones and the auditory system: biological effects and numerical dosimetry" (Supervisor and tutor: Paolo Ravazzani)  
06/2000 M Sc. degree in Biomedical Engineering at the Polytechnic of Milan, Milan, Italy. M Sc. Thesis: "Adaptative reconstruction by deformable geometrical models of 3D closed surfaces for biomedical applications (supervisor Prof. Marcello Crivellini; tutor: Gabriella Tognola)

### EMPLOYMENT AND RESEARCH EXPERIENCE

01/2021-Today Senior Researcher at the Institute of Electronics, Computers and Telecommunication Engineering of the National Research Council of Italy (IEIIT-CNR)  
09/13-12/19 Research Scientist at the Institute of Electronics, Computers and Telecommunication Engineering of the National Research Council of Italy (IEIIT-CNR)  
02/10-08/2013 Research Scientist at the Institute of Biomedical Engineering of the National Research Council of Italy (ISIB-CNR)  
12/05 - 01/10 Tenured Research at the Institute of Biomedical Engineering of the National Research Council of Italy (ISIB-CNR)  
06/05 - 12/05 Research Fellowship at the Institute of Biomedical Engineering of the National Research Council of Italy (ISIB-CNR) for the European project EMFnEAR "Exposure at UMTS electromagnetic fields: study on potential adverse effects on hearing" (2004-2007, 2004127)  
06/03 - 05/05 Research Fellowship at the Institute of Biomedical Engineering of the National Research Council of Italy (ISIB-CNR) for the European project GUARD "Potential Adverse Effects of GSM Cellular Phones on Hearing"- FP5, Quality of life and management of living resources (2002-2004, Contract N. QLK4-CT-2001-00150)  
03/03 - 05/03 Grant from the CNR at the University of Southampton, Hearing and Balance Centre (UK), for the study of the effects of GSM cellular phones electromagnetic fields on hearing (Call n. 203.22, 26 February 2002)  
09/02 - 12/02 Grant from the European Doctorate in Sound and Vibration Studies Marie Curie Multipartner Training Site at the University of Southampton, Hearing and Balance Centre (UK), for the study of otoacoustic emissions and small changes in auditory function  
09/00- 05/01 Grant from the CNR at the Center of Biomedical Engineering (CIB-CNR) for studies in the field of the "Development of new method for modelling and treatment of 3D surfaces in the biomedical field".

### SKILLS AND RESEARCH INTERESTS

- Interactions between electromagnetic fields (EMF) and biological system
- EMF dosimetry and exposure assessment by both deterministic and stochastic computational electromagnetics
- Medical applications of EMF, with particular focus on both invasive and non-invasive neurostimulation technologies (e.g. Transcranial Direct Current Stimulation, transcutaneous

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- spinal Direct Current Stimulation, Transcranial Magnetic Stimulation, Cortical Stimulation, magnetoelectric nanoparticles)
  - Medical device safety (i.e. electrical hazards, heating damage, and safe stimulation protocols)
  - EMF effects on biological system (e.g. auditory system, cardiovascular system)
  - Experimental protocols definition and data collection
  - Biomedical signal processing

### **TEACHING AND TUTORING ACTIVITIES**

- 2001-2018 Lecturer for the course of "Bioelettromagnetismo e strumentazione biomedica" (Bachelor Degree in Biomedical Engineering), "Bioelettricità e Bioelettromagnetismo I" (Bachelor Degree in Biomedical Engineering) and "Bioingegneria dei sistemi neurosensoriali" (Master Degree in Biomedical Engineering), at the Biomedical Engineering Faculty, Polytechnic of Milan.
- 2004-Today Students supervisor for master and bachelor degree at the Polytechnic of Milan
- 2011-Today PhD Students supervisor at the Polytechnic of Milan
- 2011-Today Supervisor of research fellows for the topic "Electromagnetic fields and health: safety and medical applications" at IEIIT-CNR
- 2020 - Today Scientific Responsible of the Laboratory of Bioelectromagnetism "Emanuele Biondi" at the IEIIT CNR, Milano

### **PROJECTS (Role: PI or PI of RESEARCH UNIT)**

- META-BRAIN - Magnetoelectric and Ultrasonic Technology for Advanced Brain Modulation, EU HORIZON (2024-2026), role: PI of Research Unit
- SPACE- $\mu$ gMF: Simbiosi e patogenicità in piante esposte alla combinazione di microgravità ( $\mu$ g) e assenza di campo magnetico (MF), Research Contract with ASI N. 2024-13-U.0 (2024-2027), role: PI of Research Unit
- CENTRIC - Towards an AI-native, user-centric air interface for 6G networks, EU HORIZON (2023-2025); role: Co-PI of Research Unit
- CHILD 5G - Deterministic and stochastic exposure assessment of children and pregnant women at emerging 5G frequencies, Anses, French Agency for Food, Environmental and Occupational Health and Safety (2023 - 2027); role: PI of Research Unit
- TREES MAG - modelling of plant REsponses to varying MAGnetic fields: the search for a plant magnetoreceptor, Italian Ministry of University and Research (MUR), call PRIN 2022, European Union - Next Generation EU (2023-2025), role: PI of Research Unit.
- GOLIAI - 5G expOsure, causaL effects, and rIsk perception through citizen engagement, EU HORIZON (2022-2027); role: Co-PI of Research Unit
- RFBIO - Biological Effects of Radiofrequency Electromagnetic Field, European Defence Agency (EDA) (2020 - 2026); role: PI and Project Coordinator
- EPITECH- EpiTech/IEIIT Research Plan on EpiTech rTMS systems (2019 - 2020); role: PI and Project Coordinator
- FISM - Transcutaneous spinal cord and transcranial direct current stimulation as tools to improve spasticity in multiple sclerosis (FISM, 2018 - 2020); role: PI of Research Unit
- AMPERE - Advanced MaPping of residential ExposuRE to Rf - Emf sources, Anses, French Agency for Food, Environmental and Occupational Health and Safety (2016 - 2020); role: PI of Research Unit
- Open Ear Amplification in Tinnitus therapy, Research Plan with Fondazione Ascolta e Vivi, Milano (2006-2008): role: PI and Project Coordinator

### **PROJECTS PARTICIPATION**

- ESPOJAM - Exposure Assessment to RF EMF generated by military jammer, National Military Research Plan (2022-2023, phase 2); role: WP participant
- ESPOJAM - Exposure Assessment to RF EMF generated by military jammer, National Military Research Plan (2019-2021, phase 1); role: WP participant
- GREAM3 - Genotoxicity of radiofrequency electromagnetic fields in military applications, National Military Research Plan (2019-2021); role: WP participant

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- COST Action CA17115 European network for advancing ElectroMagnetic hyperthermic medical technologies (2018-2022); role: Management Committee Substitute
  - CUPIDO - Cardio Ultraefficient nanoParticles for Inhalation of Drug prOducts, EU H2020 (2017-2021); Role: WP participant
  - ELFSTAT- In depth evaluation of children's exposure to ELF (40 – 800 Hz) magnetic fields and implications for health risk of new technologies, Anses, French Agency for Food, Environmental and Occupational Health and Safety (2015 - 2019); role: WP leader
  - COST Action BM1309 European network for innovative uses of EMFs in biomedical applications (2014-2018); role: Working Module Responsible
  - GERONIMO - Generalised EMF Research using Novel Methods. An integrated approach: from research to risk assessment and support to risk management, EU FP7 (2014-2018); role: Task leader
  - ARIMMORA Advanced Research on Interaction Mechanisms of electroMagnetic exposures with Organisms for Risk Assessment, EU FP7 (2011-2015); role: Task leader
  - EFHRAN European Health Risk Assessment Network on EMF Exposure, EC, Executive Agency for Health and Consumers, (2009-2012); role: Deputy Member of Project management Board, WP participant
  - AHEAD III - Assessment of Hearing in the Elderly: Aging and Degeneration - Integration through Immediate Intervention, Ec FP7 (2008-2011); role: Steering Committee Member, WP participant
  - EMF-NET- Effects of the Exposure to Electromagnetic Fields: from Science to Public Health and Safer Workplace, EC FP6 (2004-2008); role: WP participant

#### **EDITORIAL ACTIVITY**

- Lead Guest Editor (with Maxim Zhadobov and Giulia Sacco) of the Special Issue: "Challenges and Solutions in Exposure Assessment for Emerging Wireless Networks" in Sensors (ISSN: 1424-8220) ([https://www.mdpi.com/journal/sensors/special\\_issues/Exposure\\_Network](https://www.mdpi.com/journal/sensors/special_issues/Exposure_Network))
- Topic Editor (with Luca Chiaraviglio, Mohamed-Slim Alouini, Leyre Azpilicueta, Davide Colombi, Muhammad Ali Imran, Haim Madjar Mazar, Martin Rösli, Jack Rowley, Hina Tabassum, Richard Tell) of the Research Topic: "EMF Exposure from 5G and B5G Networks: Risk Assessment, Policy and Engineering", in Frontiers in Communication and Networks, (<https://www.frontiersin.org/research-topics/18001/emf-exposure-from-5g-and-b5g-networks-risk-assessment-policy-and-engineering/overview>)
- Lead Guest Editor (with Wout Joseph e Maxim Zhadobov) of a Special Issue on "Human Exposure in 5G and 6G Scenarios" in Applied Sciences (ISSN 2076-3417) ([https://www.mdpi.com/journal/applsci/special\\_issues/5g\\_6g\\_scenarios](https://www.mdpi.com/journal/applsci/special_issues/5g_6g_scenarios))
- Lead Guest Editor (with Wout Joseph e Gyorgy Thuroczy) of a Special Issue on "Computational Bioelectromagnetics in Medicine", Computational and Mathematical Methods in Medicine (<https://www.hindawi.com/journals/cmmm/si/961974/cfp/>)
- Topic Editor (with Alberto Priori, Mario U. Manto and Marco Molinari) of the Research Topic: "Progress in transcutaneous DC stimulation for modulating functions in the cerebellum and spinal cord" in Frontiers in Human Neuroscience (<https://www.frontiersin.org/research-topics/3483/progress-in-transcutaneous-dc-stimulation-for-modulating-functions-in-the-cerebellum-and-spinal-cord>).
- Co-editor of one book (IV Convegno Nazionale Interazioni tra Campi Elettromagnetici e Biosistemi, editor: Salvatore Caorsi, Paolo Ravazzani, Marta Parazzini, CNR Edizioni, ISBN 978 88 8080 208 2, pp. 112)
- Associate Editor of "Frontiers in Public Health" - Speciality "Radiation and Health"

#### **WORKING GROUP AND ASSOCIATIONS**

- CNR Representative in CEI Technical Committee CT106 "Human exposure to electromagnetic fields"
- Elected Member of the Council of the European BioElectromagnetics Association (EBEA) (2013-2017)
- Elected Member of the Italian National Group of Bioengineering (GNB) (2016-2024)
- Member of the IEEE Institute of Electrical and Electronics Engineers
- Member of the IEEE EMBS Engineering in Medicine and Biology Society Member

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- Member of the Inter-University Centre for the Study of Interactions between Electromagnetic Fields and Biosystems (ICEMB).
  - Member of the National Inter-University Consortium for Telecommunications – CNIT

### **PUBLICATIONS**

Total number of publications in peer-review journals: 121 (192 documents in Scopus)

Total number of citations: 2672 (Scopus, accessed in May 2025)

H index: 26 (Scopus, accessed in May 2025)

Researcher unique identifier (ORCID, SCOPUS)

Orcid ID: 0000-0001-9008-7530

Scopus Author ID: 35619831300

### **SOCIAL SKILLS AND COMPETENCES**

Good attitude to initiative and leadership, enthusiasm, open-mind and spontaneity, ability to work both independently and collaboratively in a team acquired through cooperative experiences in national and international research teams, both public and private; ability to communicate and coordinate; interpersonal skills at different levels; classroom management

### **ORGANISATIONAL SKILLS AND COMPETENCES**

Good ability to organize and manage time, strong analytical skills, and excellent ability to deal with and solve the critical issues arising from the implementation of a project and to successfully achieve the objectives; ability to manage instrumental, financial and human resources; ability to manage several projects simultaneously; good problem-solving skills.

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV



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