

STEFANIA DELLA PENNA - CURRICULUM VITAE

• EDUCATION

- December 4th 2002 Ph.D. in Neurophysiology: Neural bases of high cognitive functions” at the University of Rome “La Sapienza”. Title of the PhD thesis: “Functional Study of the Secondary Somatosensory Cortex using Magnetoencephalography and Functional Magnetic Resonance Imaging”. According to the rules of the PhD course, no supervisor was formally associated to my research activity. Thus no supervisor is reported on the PhD certificate. However, Prof. Claudio Babiloni was supervising my researches, as stated in the letter I uploaded.
- July 22th 1991 Master Degree in Physics at the University of L’Aquila, Faculty of Science, mark 110/110 cum laude. The title of the thesis was “Experimental instrumentation for low-frequency ESR imaging”, the advisor was prof. Antonello Sotgiu.

• CURRENT POSITION

- 2010-present Associate Professor of Physics-Faculty, Department of Neuroscience, Imaging and Clinical Sciences and Institute for Advanced Biomedical Technologies, University “G. D’Annunzio” of Chieti-Pescara, Italy

• PREVIOUS POSITIONS

- 2001-2010 Researcher of Physics at the Department of Clinical Sciences and Bioimaging and Institute for Advanced Biomedical Technologies, University “G. D’Annunzio” of Chieti-Pescara, Italy
- 1999-2001 High-level staff, , University “G. D’Annunzio” of Chieti-Pescara, Italy
- 1992-1998 Collaboration with the Institute for Advanced Biomedical Technologies, University “G. D’Annunzio” of Chieti-Pescara, Italy
- 1991 Collaboration with the Institute of Medical Physics, University of L’Aquila, Italy

• FELLOWSHIPS AND AWARDS

- 12-18-2014 National Scientific Qualification for Full Professors of Physics received from the Italian Ministry of University and Research
- 06-02-2017 Associate to SPIN-CNR

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- 2013 1 Master Student in Biomedical Engineering, Department of Mechanical and Aerospace Engineering, University “La Sapienza” of Rome, Italy
- 2003–present 7 PhD Students (Andrea Pentiricci, Francesco Cianflone, Gabriella Tamburro, Valentina Sebastiani, Sara Spadone, Allegra Conti, Francesca Della Penna) at the University “G. D’Annunzio” of Chieti-Pescara, Italy
- 2011–present 4 Postdocs (Raffaele Sinibaldi, Sara Spadone, Viviana Betti, Patrizia De Marco) at the University “G. D’Annunzio” of Chieti-Pescara, Italy

• TEACHING ACTIVITIES

- 1997-99 Professor - Experimental Physics I for Geologists, Faculty of Mathematical and Physics Sciences, University of Chieti, Italy
- 1996 - present Professor – Applied Physics for Laboratory Technician, Radiology Technician, Dietist and other Master Degrees at the School of Medicine, University of Chieti, Italy. Since 2010, more than 120 hours teaching per year.
- 2008 – present Professor – Digital Signal Analysis for the PhD Courses “Neuroscience and Imaging” (2013-2015), “Functional neuroimaging: instrumentation, methods and models to study the mind-brain-behavior relationships” (2011-2012), “Functional neuroimaging: from cells to systems” (2008-2010)

• ORGANISATION OF SCIENTIFIC MEETINGS

- 2016 Organization of the Symposium “The complex scenario of dynamic large scale interactions at rest”, 20th International Conference on Biomagnetism (BIOMAG 2016), October 1-6 2016, Seoul, South Korea (accepted, to be held)
- 2014 Organization of the Symposium “Mechanisms of integration/segregation in the resting brain”, 19th International Conference on Biomagnetism (BIOMAG 2014), August 24-28 2014, Halifax, Canada

- 2006 Member of the Local Organizing Committee, 17th Meeting of the International Society for Brain Electromagnetic Topography (ISBET 2006), September 27-30 2006, Chieti, Italy
- 2003 Member of the Local Organizing Committee and Chairperson, 4th International Conference on Non-Invasive Functional Source Imaging, September 10-13 2003, Chieti, Italy

- **INVITED TALKS**

- “Trend on biomedical applications”, 4th SCENET workshop on Electronic Applications of Superconductivity, University of Twente, Enschede, May 6-7, 1998
- “Medical applications of SQUIDS”, 7th SCENET School on Superconducting Materials and Applications, University of Camerino, Italy, July 17- 28 2006
- “Is what we think still a secret?”, Chalmers Initiative Seminar ‘At the interface between life and matter’, Gothenburg, Sweden, June 1-2 2009
- “MRI at 10 mT ”, 18th International Conference on Biomagnetism, Paris, France, August 26-30 2012
- “fMRI integration with electrophysiological techniques” Introductory Course On Medical Imaging, Rome, 16-18 October 2013
- “Architecture of MEG functional interactions at rest” Biomag 2014, August 24-28 Halifax, Canada
- “Dynamical architecture of resting state networks reveals frequency-specific prior and idling states”, October 1-6 Biomag 2016, Seoul, South Korea

- **INSTITUTIONAL RESPONSIBILITIES**

- 2010 – present Associate Professor, Permanent Staff, University of Chieti
- 2013–present Member of the Teaching Board of the PhD course on “Neuroscience and Imaging” at the University of Chieti. The Board consists of 16 members evaluated by the Italian Ministry of University and Research.
- 2011–2012 Member of the Teaching Board of the PhD course on “Functional neuroimaging: instrumentation, methods and models to study the mind-brain-behavior relationships
- 2008 – 2010 Member of the Teaching Board of the PhD course on “Functional neuroimaging: from cells to systems” of the University of Chieti

- **SCIENTIFIC ACTIVITY**

- Since 1998 Stefania Della Penna is the team leader of the unit involved in instrumentation at the Department of Neuroscience, Imaging and Clinical Science and at ITAB, University of Chieti. As PI of the research in instrumentation, thanks to more than 20 years of experience in superconducting instrumentation for biomagnetism (that is the study of the magnetic field generated by biological tissues, specifically in the human body), Stefania Della Penna was involved in the design and implementation of systems based on superconducting devices (SQUID, Superconductive Quantum Interference Device), and specifically of systems for MEG, for MCG, in vitro and in vivo susceptometry. Since a few years, she is involved in instrumentation for Very Low Field MRI. For this activity, the team collaborated with teams from the CEA in Paris and from the Aalto University at Helsinki. Additionally Stefania Della Penna leads a team involved in the multidisciplinary study of the cerebral cortex activity using MEG, and in the integration of the results obtained with this method with the ones obtained from other functional imaging techniques, such as fMRI. She contributes to the design and implementation of the required instrumental set-up for the specific research study, and especially to the data processing through the design and implementation of methods and algorithms for the cerebral activity analysis in the time and frequency domains and more recently for the study of large scale brain connectivity through stationary and non stationary approaches. For the latter research study, the team cooperated with Washington University di St. Louis in USA.

- **GRANTS**

- Stefania Della Penna was included in the teams carrying out international project (MEGMRI, BrainSync, Human Connectome Project in USA,) organizing part of the research activity of the local unit. She is currently included in the team of the project Breakben . This activity is proven by the papers published together with researchers from universities and research centers in Europe and USA. Moreover, she cooperates with prof. Corbetta from

Washington University in St Louis, to carry out multidisciplinary research projects dealing with the design and implementation of methods for the analysis of resting state networks, as testified by the co-authored papers.

- Stefania Della Penna was PI of the local team in the Italian project PRIN, prot. 2008KXYSP9_002.

h-index: 23 (Scopus, November 2017)

Citations: > 2400 (Scopus)

November 15, 2017

Sincerely
Stefania Della Penna