

Curriculum Vitae of MARCO MARINO, Ph.D.

Department of Movement Sciences
Research Center for Motor Control and Neuroplasticity
KU Leuven
101 Tervuursevest, 3001, Leuven, BELGIUM

Brain Imaging and Neural Dynamics Research Group
IRCCS San Camillo Hospital
Via Alberoni, 70, 30126, Venice, ITALY

e-mail: marco.marino@kuleuven.be
phone: +39 351 59 79 262
skype: [marcolinus89](https://www.skype.com/people/marcolinus89)

e-mail: marco.marino@ospedalesancamillo.net
SCOPUS ID: [56647551400](https://scopus.com/authorid/56647551400)
ORCID: [0000-0001-5310-6966](https://orcid.org/0000-0001-5310-6966)
ResearcherID: [Z-2459-2019](https://orcid.org/Z-2459-2019)

EDUCATION

- 2018 **Ph.D. in Neuroscience** at ETH Zurich, SWITZERLAND
"Development of a technological platform for simultaneous EEG-fMRI data integration", Supervisors:
Prof. Nicole Wenderoth, Prof. Dante Mantini
- 2014 **M.Sc. in Biomedical Engineering** at University of Bologna, ITALY
"Study and development of automated techniques for the assessment of left ventricular mass and volumes in cardiac magnetic resonance", Supervisors: Prof. Cristiana Corsi, Prof. Victor Mor-Avi
- 2011 **B.Sc. in Biomedical Engineering** at University of Bologna, ITALY
"Measurement of strain in ligaments using image correlation", Supervisor: Prof. Luca Cristofolini

RESEARCH EXPERIENCE

- 10/19 – present **FWO Junior Postdoctoral fellow** at Dept. Movement Sciences, KU Leuven, BELGIUM
"Neurophysiological mechanisms of hypo-perfusion in stroke patients"
- 09/18 – 09/19 **Postdoctoral researcher** at IRCCS San Camillo Hospital, Venice, ITALY
Developing multimodal neuroimaging research line for neurological rehabilitation
- 10/14 – 09/18 **Graduate research assistant** at Dept. Experimental Psychology, Oxford University, UK
Investigating the link between EEG and fMRI measures of functional connectivity in the human brain at rest, and the emergence of resting state networks in the developing brain
- 09/15 – 06/18 **International scholar** at Dept. Movement Sciences, KU Leuven, BELGIUM
Developing tools for EEG and MRI data analysis oriented to the identification of the electrophysiological signature of resting state networks in human brain
- 10/14 – 03/18 **Ph.D. candidate** at Dept. Health Sciences and Technology, ETH Zurich, SWITZERLAND
Developing a technological platform for simultaneous EEG-fMRI data integration
- 04/14 – 09/14 **Visiting graduate student** at Dept. of Medicine, University of Chicago, IL, USA
Developing image processing tools for the assessment of cardiac size and function from MRI
- 01/13 – 07/13 **Visiting graduate student** at Université de Technologie de Compiègne, FRANCE
Analysing mechanical properties of bone tissue using nanoindentation
- 03/11 – 09/11 **Undergraduate research assistant** at Istituto Ortopedico Rizzoli, Bologna, ITALY
Analysing mechanical properties of ligaments using digital image correlation

PUBLICATIONS

Zhao M., **Marino M.**, Samogin J., Swinnen S., Mantini D., "Hand, foot and face representations in primary somatomotor cortex: a high-density electroencephalography study", Scientific Reports, 2019 <https://doi.org/10.1038/s41598-019-55369-3>

Marino M., Arcara G., Porcaro C., Mantini D., "Hemodynamic correlates of electrophysiological activity in the default mode network", Frontiers in Neuroscience, 2019 <https://doi.org/10.3389/fnins.2019.01060>

Samogin J.*, Liu Q., **Marino M.**, Wenderoth N., Mantini D., "Shared and connection-specific intrinsic interactions in the default mode network" Neuroimage, 2019 <https://doi.org/10.1016/j.neuroimage.2019.07.007>

Marino M.*, Liu Q., Samogin J., Tecchio F., Cottone C., Mantini D., Porcaro C., "Neuronal dynamics enable the functional differentiation of resting state networks in the human brain" Human Brain Mapping, 2019 <https://doi.org/10.1002/hbm.24458>

Taberna A. G., **Marino M.**, Ganzetti M., Mantini D., "Spatial localization of EEG electrodes using 3D scanning" Journal of Neural Engineering, 2019 <https://doi.org/10.1088/1741-2552/aafdd1>

Marino M., Liu Q., Koudelka V., Porcaro C., Hlinka J., Wenderoth N., Mantini D., "Adaptive optimal basis set for BCG artifact removal in simultaneous EEG-fMRI" Scientific Reports, 2018 <https://doi.org/10.1038/s41598-018-27187-6>

Guarnieri R., **Marino M.**, Barban F., Ganzetti M., Mantini D., "Online EEG artifact removal for BCI applications by adaptive spatial filtering" Journal of Neural Engineering, 2018 <https://doi.org/10.1088/1741-2552/aacfd1>

Marino M., Liu Q., Del Castello M., Corsi C., Wenderoth N., Mantini D., "Heart-brain interactions in the MR environment: characterization of the ballistocardiogram in EEG signals collected during simultaneous fMRI" Brain Topography, 2018 <https://doi.org/10.1007/s10548-018-0631-1>

Kawaji K., Patel M. B., Cantrell C. G., Tanaka A., **Marino M.**, Tamura S., Wang H., Wang Y., Carroll T. J., Ota, T. and Patel, A. R., "A fast, non-iterative approach for accelerated high-temporal resolution cine-CMR using DISPEL and MoPS" Medical Physics, 2017 <http://dx.doi.org/10.1002/mp.12234>

Marino M., Liu Q., Brem S., Wenderoth N., Mantini D., "Automated detection and labelling of high-density EEG electrodes from structural MR images" Journal of Neural Engineering, 2016 <http://dx.doi.org/10.1088/1741-2560/13/5/056003>

Marino M., Corsi C., Maffessanti F., Patel A.R., Mor-Avi V., "Objective Selection of Short-Axis Slices for Automated Quantification of Left Ventricular Size and Function by Cardiovascular Magnetic Resonance" Clinical Imaging, 2016 <http://dx.doi.org/10.1016/j.clinimag.2016.02.025>

Samogin J., **Marino M.**, Porcaro C., Swinnen S., Wenderoth N., Mantini D., "Frequency-dependent functional connectivity in resting state brain networks", submitted

*shared first authorship

HONORS AND AWARDS

2019	FWO Junior Postdoctoral Fellowship 2019-2022 (~150.000 €)
2014	Scholarship for performing M.Sc. thesis abroad (~1.500 €)
2013	Erasmus Lifelong Learning Program (LLP) scholarship (~1.500 €)

TEACHING AND MENTORING EXPERIENCE

- 2016 – present Mentoring and scientific support for junior research staff at KU Leuven
Co-supervisor of 2 master students at KU Leuven
Demonstrator for master course (~10 students) in EEG data collection/analysis at KU Leuven
- 2019 – present Teaching assistant for master course (~25 students) “Advanced Research Skills” at KU Leuven
- 2018 – present Mentoring and scientific support for junior research staff at IRCCS San Camillo Hospital
Co-supervisor of 2 master students at University of Padua
- 04/05/2016 Guest lecturer for master course (~50 students) in Bioimaging at Dept. Biomedical Engineering, University of Bologna

RESEARCH SEMINARS

- 19/12/2019 “Hemodynamic correlates of electrophysiological activity in the default mode network” at Czech Academy of Sciences, Prague, Czech Republic
- 27/03/2019 “Automated detection and labeling of high-density EEG electrodes from structural MR images” at Institute for Neuroinformatics, ETH Zurich, Switzerland
- 29/11/2017 “Development of a technological platform for simultaneous EEG-fMRI data integration” at National Institute for Mental Health, Prague, Czech Republic
- 15/06/2017 “BCG artifact characterization and removal in simultaneous EEG-fMRI” at Dept. Electrical Engineering, ESAT, KU Leuven, Belgium
- 18/11/2016 “Research communication and outreach” at Dept. Movement Sciences, KU Leuven, Belgium

ORAL PRESENTATIONS AT INTERNATIONAL CONFERENCES

- 02/09/2017 **Marino M.**, Liu Q., Koudelka V., Hlinka J., Wenderoth N., Mantini D., “BCG artifact removal in simultaneous EEG-fMRI: an adaptive optimal basis set method”, *BACI Conference 2017*, Bern, 29 August-2 September 2017.
- 09/09/2014 **Marino M.**, Veronesi F., Tarroni G., Mor-Avi V., Patel A.R., Corsi C., “Fully Automated Assessment of Left Ventricular Volumes, Function and Mass from Cardiac MRI”, *CinC*, Boston, 7-10 September 2014.

CONFERENCE PROCEEDINGS

- Porcaro C., **Marino M.**, Liu Q., Samogin J., Tecchio F., Cottone C., Mantini D., “Neuronal dynamics enable the functional differentiation of resting state networks in the human brain”, *OHBM 2019*, Rome, 9 June-13 June 2019.
- Guarnieri R., **Marino M.**, Barban F., Ganzetti M., Mantini D., “Adaptive spatial filtering for online EEG artefact removal”, *OHBM 2018 Annual Meeting*, Singapore, 17-21 June 2018.
- Liu Q., **Marino M.**, Wenderoth N., Mantini D., “Frequency-dependent connectivity analysis using high-density EEG”, *OHBM 2017 Annual Meeting*, Vancouver, 25-29 June.

Marino M., Liu Q., Koudelka V., Hlinka J., Wenderoth N., Mantini D., "BCG artifact removal in simultaneous EEG-fMRI: an adaptive optimal basis set method", *Cutting EEG 2017*, Glasgow, 19-22 June 2017.

Marino M., Liu Q., Brem S., Wenderoth N., Mantini D., "Detecting high-density EEG electrodes from structural MR images", *OHBM 2016 Annual Meeting*, Geneva, 26-30 June 2016.

Kawaji K., Patel M.B., **Marino M.**, Lang R.M., Wang H., Wang Y., Patel A.R., "Improved Assessment of Left Ventricular Diastolic Function using High-Temporal Cine-CMR", *ISMRM 24th Annual Meeting & Exhibition*, Singapore, 7-13 May 2016.

Marino M., Mor-Avi V., Maffessanti F., Corsi C., Patel A.R., "Objective Selection of Short-Axis Slices for Automated Quantification of Left Ventricular Size and Function by Cardiovascular Magnetic Resonance", *SCMR-EuroCMR 2015 Joint Scientific Sessions*, Nice, 4-7 February 2015.

Kawaji K., **Marino M.**, Tanaka A., Tarroni G., Ota T., Lang R. M., Patel A. R., "A Novel Technique for Respiratory Motion Correction in Rapid Left Ventricular Myocardial T1 Mapping and Quantitative Analysis of Myocardial Fibrosis", *American Heart Association Scientific Sessions*, Chicago, 15-19 November 2014.

Marino M., Veronesi F., Tarroni G., Mor-Avi V., Patel A.R., Corsi C., "Fully Automated Assessment of Left Ventricular Volumes, Function and Mass from Cardiac MRI", *Computing in Cardiology*, Boston, 7-10 September 2014.

Marino M., Veronesi F., Corsi C., "Fully Automated Assessment of Left Ventricular Volumes and Mass from Cardiac Magnetic Resonance Images", *36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Chicago, 26-30 August 2014.

LANGUAGES

Italian (Native), English (Fluent), French (Fluent), Dutch (Basic)

PROGRAMMING

Matlab (Advanced), and Simulink, C++, Java, Labview (Beginner)

Neuroimaging software: SPM, EEGLab, MRICron (Advanced), and Fieldtrip, FSL, Brainstorm (Beginner)

TECHNICAL SKILLS

- Biomedical signal and image processing
- Neuroimaging (MEG, EEG, sMRI, and fMRI) data acquisition and analysis
- Design and implementation of experimental protocols for simultaneous EEG-fMRI data acquisition
- Mechanical characterization of biological tissues using load cell, strain gauges, DIC technique
- Kinematic and dynamic analysis of human body motion

SOFT SKILLS

- Scientific communication: transmitting scientific knowledge in a clear and effective manner
- Scientific writing: writing and editing of scientific manuscripts for expert readers and general audience
- Public speaking: presenting in a clear and engaging manner
- Goal-oriented mentoring: supporting colleagues in their individual activities to facilitate the achievement of global laboratory goals
- Critical and multidisciplinary thinking
- Emotional intelligence

SUMMER SCHOOLS and COURSES

12-16/10/16	NIBS summer School in Non-Invasive Brain Stimulation at Freiburg, GERMANY
04-06/07/16	LET'S TALK SCIENCE workshop on communication science at Gent, BELGIUM
01-11/09/15	EXCITE summer school in Biomedical Imaging at Zurich, SWITZERLAND
10/14 – 07/15	FMRIB course on MRI Physics and fMRI analysis using FSL software at, Oxford, UK
10/14 – 03/15	ACADEMIC WRITING course at Oxford, UK

OTHER EXPERIENCE

2016 – present	Volunteer at popular science events in Belgium and Italy (“Dag van de Wetenschap”, “Notte dei Ricercatori”, i.e. Science Day)
2015 – 2018	Actor in university theatre company “CampusToneel” (in Dutch)
2014 – 2015	Active member of Oxford University Italian Society (OUIS) at University of Oxford
2010 – 2013	Representative and vice president of the engineering student union at University of Bologna Planning of conferences and social events for engineering students
2007 – 2012	Actor in amateur theatre companies (in Italian, French and English)
2008 – 2010	Volunteer in Emergency (humanitarian NGO that provides emergency medical treatment) Educational activity in high schools and planning of promotional events

ON-LINE LINKS

<http://it.linkedin.com/pub/MarcoMarino>

<https://www.researchgate.net/profile/MarcoMarino>

Leuven, 23 December 2019

Marco Marino



REFERENCES

Prof. Nicole Wenderoth, Ph.D.

Professor
Dept. Health Sciences and Technology
ETH Zurich, SWITZERLAND

e-mail: nicole.wenderoth@hest.ethz.ch

Prof. Dante Mantini, Ph.D.

Associate Professor
Dept. Movement Sciences
KU Leuven, BELGIUM

e-mail: dante.mantini@kuleuven.be

Prof. Victor Mor-Avi, Ph.D.

Professor
Dept. Medicine - Section of Cardiology
University of Chicago, USA

e-mail: vmoravi@medicine.bsd.uchicago.edu

Prof. Cristiana Corsi, Ph.D.

Associate Professor
Dept. Electronic and Information Engineering
University of Bologna, ITALY

e-mail: cristiana.corsi3@unibo.it

Prof. Camillo Porcaro, Ph.D.

Adjunct professor and Independent researcher
National Research Council
Rome, ITALY

email: camillo.porcaro@afar.it

Dr. Francesco Piccione, M.D.

Head of Neurophysiology Department
IRCCS San Camillo Hospital
Venice, ITALY

e-mail: francesco.piccione@ospedalesancamillo.net

Dr. Giorgio Arcara, Ph.D.

MEG and Neurophysiology Lab Coordinator
IRCCS San Camillo Hospital
Venice, ITALY

email: giorgio.arcara@gmail.com