

Dr. CAMILLO PORCARO
Curriculum Vitae

Office address:	Institute of Cognitive Sciences and Technologies (ISTC) – National Research Council (CNR), Fatebenefratelli Hospital, 00186, Rome, Italy	Office Phone: 0039 066837382 Mobile Phone: 0039 3398171902
Current Position:	Staff Researcher	E-mail: camillo.porcaro@istc.cnr.it

Employment History**October 2015 – Present**

Adjunct Professor at Department of Information Engineering - Università Politecnica delle Marche, Ancona, IT-60131 Italy. Master course in Biomedical Engineering. Teaching course - Bio-imaging and Brain Research. Teaching Code B402.

June 2014 – September 2015

Visiting Professor, Neural Control of Movement Lab Department of Health Sciences and Technology ETH Zurich, Switzerland.

January 2012 – Present

Independent Researcher, LET'S, Institute of Cognitive Sciences and Technologies (ISTC) – National Research Council (CNR), Rome, Italy.

January 2012 – present

Visiting Research Fellow, Institute of Neuroscience, Newcastle University, Medical School, Framlington Place, Newcastle upon Tyne, NE2 4HH, UK.

January 2011 – December 2013 (*Honorary academic titled conferred after award of Royal Society Project*)

Honorary Research Fellow, School of Psychology, Birmingham University, Birmingham, UK.

January 2011 – December 2011

Post-Doc - Independent Research Fellow, Institute of Neuroscience, Newcastle University, Medical School, Framlington Place, Newcastle upon Tyne, NE2 4HH, UK.

March 2008 – December 2010

Post-Doc - Research Fellow, School of Psychology, Birmingham University, Birmingham, UK.
“Development of Single Trial EEG-fMRI: Investigations of Dynamic Brain Function at High Temporal and Spatial Resolution”

April 2007 - March 2008

Research Fellow, Institute for Advanced Biomedical Technologies (ITAB), University of Chieti, Italy. *“EEG/MEG Signal analysis during sleep in healthy subjects and patients”*.

May - August 2007 - Visiting Research Fellow, Aston University, Birmingham UK. Title of collaboration *‘Evaluation of the performance of linear and non-linear measures of connectivity in bioelectric signals’*.

May - August 2006 – Visiting Research Fellow, Aston University, Birmingham UK. Title of collaboration *‘Functional Source Separation applied to induced visual gamma activity’*.

July 2004 – March 2007

Research Fellow, AFaR (Association for Research Fatebenefratelli) Center of Medical Statistics and IT, Rome, Italy. Neuroscience Department. Title of research: *“Source extraction from Magnetoencephalographic (MEG) recordings to find maturation cortical index”*.

Academic History

2004-2008 **Ph.D.**, *“Functional Neuroimaging: from cells to systems”*. Institute for Advanced Biomedical Technologies (ITAB), Chieti University, Italy (**with honours**). *“Development of Tools to Estimate Functional Connectivity among Cerebral Sensorimotor Sources”*.

2001-2004 **Master II Level**, *“Bank, Insurance and Finance Management”*. Faculty of Economics of the University of Rome "La Sapienza", Italy. *“Applying Independent Component Analysis to Factor Model in Finance”*.

1995-2001 MSc Computer Science, Faculty of Science, Mathematics, Physics and Natural of the University of Rome "La Sapienza", Italy. In collaboration with ISTC-National Research Council (CNR) at the Fatebenefratelli Hospital (Isola Tiberina, Rome, Italy). Dissertation in: *Coherence analysis of bio-electrical signals*.

Main Research Interests

- Neural source identification from electrophysiological non-invasive recordings;
- Cerebral sensorimotor cortical function;
- MEG-EEG/fMRI Integration;
- Logical Reasoning and Neuroscience;
- Brain Machine Interface -BMI
- Language: Overt Speech Production
- Human brain imaging;
- Functional Connectivity by MultiVariate AutoRegressive Model (MVAR);
- Fetal Magnetocardiography and Fetal Magnetoencephalography;

I am currently involved in planning, organising and running experiments with different neuroimaging techniques, such as EEG/MEG, fMRI and concurrent EEG/fMRI. As evidenced by my publications, I have developed strong collaborations with Italian, German, Dutch and English scientists, in various universities and research facilities. The individuals and project areas include: **Dr. Tecchio**, **Dr. Salustri**, Laboratory of Electrophysiology for Translational neuroscience (LET'S)-ISTC-National Research Council CNR (Functional Source Separation, sensorimotor control, fatigue); **Prof. Pierelli**, **Dr. Coppola**, University of Rome Sapienza (cortico-subcortical networks); **Dr. Di Lorenzo**, **Prof. Siracusano**, Department of Neuroscience University of Rome Tor Vergata (Low and High Frequency Oscillations); **Prof. Abrusci**, **Prof Casadio**, Philosophy Department, University 'Roma Tre' (Logic Reasoning); **Prof. Rossini**, **Dr. Tombini**, **Dr. Di Pino** Clinical Neurology and Biomedical Robotics and Biomicrosystems Lab., Campus BioMedico of Rome University (Robotic Hand Control); **Prof. Romani**, **Prof. Pizzella**, **Dr. Zappasodi**, Department of Neuroscience and Imaging, University of Chieti-Pescara (Time-frequency analysis, Independent Component Analysis ICA, MEG, EEG); **Dr. Oswald**, Department of Neurology and Bernstein Centre for Computational Neuroscience, Charité, Berlin, Germany (Information theory); **Dr. Hadjipapas**, Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen (visual induced gamma and evoked activity); **Prof. Meyer**, Netherlands Max Planck Institute for Psycholinguistics, Nijmegen (Overt Speech Production, EEG); **Prof. Eyre**, Institute of Neuroscience, Newcastle University (cortical plasticity in cerebral palsy, EEG); **Prof. Seri**, School of Life and Health Sciences, Aston University (Contradictory Reasoning, EEG, MEG); **Dr. Bagshaw**, **Dr. Mayhew**, **Dr. Krott**, **Dr. Rotshtein**, School of Psychology and Birmingham University Imaging Centre, University of Birmingham (Logic Reasoning, Overt Speech Production, Development of Single Trial Analysis Tools, fMRI, EEG, concurrent EEG-fMRI); **Dr. Barnes**, Wellcome Trust Centre for Neuroimaging, UCL, London (static and dynamic visual stimulation, MEG and EEG).

Invited Lectures

- 2015** National MS Center, Melsbroek, Brussels, Belgium. *'M/EEG and simultaneous EEG-fMRI empowered by Functional Source Separation to personalize interventions against Multiple Sclerosis fatigue'*
- 2015** Department of Health Sciences and Technology Institute of Robotics and Intelligent Systems Rehabilitation Engineering Laboratory, ETH, Zurich, Switzerland. *'MEG and EEG signal processing empowered by Functional Source Separation'*.
- 2014** Department of Health Sciences and Technology, ETH Zurich, Switzerland, *'Semi-Blind Functional Source Separation Algorithm from non-invasive electrophysiology to neuroimaging'*

- 2012** Institute of Neuroscience, Newcastle University, Wolfson Research Centre Campus for Ageing and Vitality, UK. *'Task Contrast Functional Source Separation a novel approach to investigate non-invasive neuroimaging data'*
- 2011** Institute of Neuroscience, Newcastle University, UK. *'From the Cerebral Source Separation using Blind and semi-Blind methods to the Cerebral Network Identification'*.
- 2010** Newcastle University (UK), *'Brain Source Identification using Blind and semi-Blind separation methods in sensory-motor and cognitive tasks'*.
- 2010** Plymouth University (UK), *'Brain Source Identification in Simple and Complex Tasks using Blind and semi-Blind Methods'*.
- 2010** Aston University, Birmingham, UK. *'Dynamics of functional connectivity within the hand somatosensory sub-cortical and cortical network'*.
- 2010** University College London (UK), *'Functional Source Separation improves the data quality during concurrent EEG-fMRI'*
- 2009** International School for Advanced Studies (SISSA – Trieste, Italy). *'Cerebral source identification: from artefact removal to functional source separation'*.
- 2008** University of "Roma Tre", *'Positive' and 'Negative' Proposition in logic reasoning: an EEG Study.*

Oral Presentation in National and International Conferences

- 2015** Hand somatosensory Functional Source Separation (FSS) analysis reveals hypoactive subcortical source signals in migraine interictally, 60° Congresso Italiano della Società Italiana di Neurofisiologia Clinica, 20-23 May, Verona, Italy.
- 2014** Speech artifacts removal from EEG recordings during overt picture naming: comparison across different methodological approaches. XI National Congress, Associazione Italiana di Scienze Cognitive (AISC), Rome 2-5/12/2014, Italy.
- 2012** *'La contraddittoria aristotelica nel ragionamento: uno studio Elettroencefalografico' (Translation: The Aristotelian contradiction in human reasoning: an EEG study)*. IX National Congress, Associazione Italiana di Scienze Cognitive (AISC), Rome 3-5/12/2012, Italy.
- 2012** *'Attivazione spazio-temporale dell'attività cerebrale durante interferenza semantica dopo la rimozione degli artefatti muscolari: uno studio EEG' (Translation: Spatio-temporal activation of brain activity during semantic interference after muscle artifacts removal: an EEG study)*. IX National Congress, Associazione Italiana di Scienze Cognitive (AISC), Rome 3-5/12/2012, Italy.
- 2011** *'Functional Source Separation and the Cyber Hand Project'*. Institute of Neuroscience, Newcastle University, UK. Neuroelectronics Brainstorming Workshop. 21st July 2011.
- 2010** *'Primary sensory-motor cortex Activity during voluntary and passive ankle mobilization'*. 29th International Congress of Clinical Neurophysiology (ICCN) 28 October – 1 November 2010. Kobe, Japan.
- 2010** *Functional source separation improves the quality of single trial visual evoked potentials recorded during concurrent EEG-fMRI'*. 29th International Congress of Clinical Neurophysiology (ICCN) 28 October – 1 November 2010. Kobe, Japan.

Teaching and Scientific activity

2015 Master course in Biomedical Engineering.

Teaching course - Bio-imaging and Brain Research (72 hrs). Teaching Code B402.

2015 Tutorial on EEGLab toolbox, LET'S-ISTC-CNR.

2014 Supervisor of (2) Post-Doc and (1) PhD:

- Onno Van der Groen (Post-Doc), Neural Control of Movement Lab Department of Health Sciences and Technology ETH Zurich, Switzerland.
- Kathy Ruddy (Post-Doc), Neural Control of Movement Lab Department of Health Sciences and Technology ETH Zurich, Switzerland.

- Marc Baechinger (Ph.D), Neural Control of Movement Lab Department of Health Sciences and Technology ETH Zurich, Switzerland.

2008 - 2012 Supervisor of (1) Research Associate, (3) MS student and (1) PhD:

- Maria Teresa Medaglia (Research Associate), Birmingham University, UK.
- Maria Teresa Medaglia (Ph.D) in collaboration with Aston University, UK and the Philosophy Department of University 'Roma Tre', Italy.
- Emma Palmer (MS student) Birmingham University, UK
- Nick Hylands-White (MS student) Birmingham University, UK.
- Filippo Falleri (MS student) Perugia University, Italy.

2008 Tutorial on 'fMRI Artefacts Removal From EEG' Birmingham University, UK.

2006 Series of 10 lectures on "Data acquisition and analysis techniques " for Clinical Neurophysiology trainees, AFAR, Rome, Italy.

Research Funding (As a Principal Investigator (PI)):

2015 International Short Visits, Swiss National Science Foundation (IZKOZ3_163614 – 9300CHF). **Title of the project: Functional Source Separation (FSS) - a novel data-driven approach to investigate neural dynamics of the human brain.**

2011-2012 Independent University Research Fellowship (£100000), Newcastle University, Institute of Neuroscience.

2011-2012 Royal Society (£12000), International Joint Project 2010/R1- Travel Grant. **'The key movement controllers: an EEG/fMRI study of the hand network dynamics'**.

2010 Birmingham University Internal Grant (£7454), Cutting Edge, (PI). **'Developing a Protocol for Analyzing EEG Data from Speech Production Studies'**.

2010 Chieti University Internal Grant (€12000), FIS/07, (PI). **'The neural basis of human fluid intelligence: application of advanced methods for fMRI-EEG integration'**.

Research Funding Award (as Co-Investigator):

2012-14 Ministry of University and Research (MIUR), Italy (€121500), Projects of Relevant National Interest (PRIN), **'Functional connectivity and neuroplasticity in physiological and pathological aging (CONN-AGE)',** [2010SH7H3F]

2012-14 "PNR-CNR Aging Program 2012-2014" (€15000).

2012 Supported by FISM - Fondazione Italiana Sclerosi Multipla (€24000) – Cod.2011/R/32, Research Grant **'Fatigue Relief in Multiple Sclerosis by transcranial Direct Current Stimulation (tDCS): can we Differentiate stimulation Targets within the primary sensorimotor cortices?'** [FaReMuS DiCDiT].

2011 Supported by FISM - Fondazione Italiana Sclerosi Multipla (€30000) - Cod.2010/R/38, Research Grant **'Fatigue Relief in Multiple Sclerosis by Neuromodulation: a transcranial Direct Current Stimulation (tDCS) Intervention'**. [FaMuSNe].

2010 Supported by FISM - Fondazione Italiana Sclerosi Multipla, (€60000.) - Cod.2009/R/23, Research Grant. **'Fatigue in Multiple Sclerosis: is there a neuroanatomic and functional profile?'** [FaMuS].

2006-08 Ministry of University and Research (MIUR), Projects of Relevant National Interest (PRIN), **'Reorganization of the sensory and motor cortices in selective lesions of the I and II motor neuron, motor neuropathies, sensory neuropathies and myopathies.** Integrated study on neurophysiology and neuroimaging.' [2005063547].

2006-08 Ministry of University and Research (MIUR), Projects of Relevant National Interest (PRIN), **'Multimodal integration of structural and functional imaging for the study of cerebral connectivity'**. [2005027850].

2006 European Space Agency (ESA-ARIADNA), **'Non-invasive brain-machine interfaces'** (AO/1-4919/05/NL/HE, study id 05/6402).

Awards

- 2012** Di Pino G*, **Porcaro C***, Tombini M, Assenza G, Pellegrino G, Tecchio F, Rossini PM. A neurally-interfaced hand prosthesis tuned inter-hemispheric communication. *Restorative Neurology and Neuroscience*, 30 407-18, 2012. ***These authors contributed equally to this work.** *This paper has been selected by IOS Press, publisher of Restorative Neurology and Neuroscience to be brought to the attention of the media in the September issue (30:5). The news release will be distributed via the scientific news services EurekaAlert (AAAS) and AlphaGalileo, serving primarily UK, Europe and Rest of World.*
- <http://www.sciencedaily.com/releases/2012/08/120820114058.htm>
 - http://www.iospress.nl/ios_news/neural-interface-for-hand-prosthesis-can-restore-function-in-brain-areas-responsible-for-motor-control/
- 2011** University Research Fellowship, Newcastle University (2 years - £100000).
- 2010** Best Poster at ICCN2010 28 October – 1 November, Kobe, Japan.
- 2010** International Federation Of Clinical Neurophysiology (IFCN) - Fellowship to attend the International Congress of Clinical Neurophysiology 28 October – 1 November, Kobe, Japan -ICCN2010Award – \$1000.
- 2008** Research Award – AFaR (Association for research Fatebenefratelli) – €1000.

Editorial Board Activity

- Journal of Biomedicine and Biotechnology
- Signal Processing Research
- Journal of Computational Medicine
- Scientifica (Neuroscience section)
- World Journal of Translational Medicine
- World Journal of Neurology
- World Journal of Radiology
- Journal of Signal and Information Processing
- International Journal of Neurology Research.

Invited Peer Reviewer

- Neuroimage
- Human Brain Mapping
- Clinical Neurophysiology
- Experimental Brain Research
- Behavioural Brain Research
- Journal Neuroscience Methods
- IEEE Transaction on Circuits and Systems II
- IEEE Transaction on Biomedical Engineering
- IEEE Journal of Biomedical and Health Informatics
- Inverse Problems
- Journal of Psychopharmacology
- Medical Engineering & Physics
- Early Human Development
- Medical Biological Eng. & Computing
- Journal of Computational Medicine
- Scientifica (Neuroscience sec.)
- Journal of Signal and Inf. Processing
- Signal Processing Research
- Medical & Biological Engineering & Computing
- Springer chapter book.
- Biomedical Signal Processing and Control
- Transactions on Biomedical Engineering
- Computers in Biology and Medicine
- Computer Methods and Programs in Biomedicine

Invited evaluator for:

- 2015** – FWO Fellowship (Application number: 12K7716N). The Research Foundation – Flanders (FWO) is an independent funding agency that supports fundamental research in all disciplines in Flanders (Belgium).
- 2014** - Scientific Independence of young Researchers SIR MIUR (RBSI14DL11)
- 2014** - Scientific Independence of young Researchers SIR MIUR (RBSI1413TP) as rapporteur
- 2013** - University of Leuven (KU Leuven) BZAPS/14/009

Membership of professional societies

- 2012-2014** Member of Associazione Italiana di Scienze Cognitive (AISC)
- 2009-2012** Member of Organization for Human Brain Mapping (OHBM)
- 2011** Member of British Neuroscience Association (BNA)
- 2010** Member of Italian Society for Clinic Neurophysiology (SINC)
- 2009** Member of Italian Association of Psychology (AIP)

List of Publications**Book Chapter**

1. **Porcaro C** and Tecchio F. Semi-Blind Functional Source Separation Algorithm from non-invasive electrophysiology to neuroimaging. (**Chapter Book**) Blind Source Separation pp. 521-551. *A book edited by Dr. Ganesh R Naik and Dr. Wenwu Wang. Edited by Springer.* (2014). DOI: 10.1007/978-3-642-55016-4_19

Publications–Full Paper¹; h-index: 17 (17 Papers cited more than 16 times); i10-index: 25 (i10-index is the number of publications with at least 10 citations). Total citations: 746.

1. Rollings DT, Asseondi S, Ostwald D, **Porcaro C**, McCorry D, Bagshaw A. Early haemodynamic changes observed in patients with epilepsy, in a visual experiment and in simulations. *Clin Neurophysiol* (In Press). **Impact Factor (IF) 2.979; Number of Citation (NC): 0**
2. Cogliati Dezza I, Zito G, Tomasevic L, Filippi MM, Ghazaryan A, **Porcaro C**, Squitti R, Ventriglia M, Lupoi D, Tecchio F. Functional and structural balances of homologous sensorimotor regions in multiple sclerosis fatigue. *Journal of Neurology* 262: 614-622 (2015) **IF 3.841; NC: 1**
3. **Porcaro C**, Medaglia MT, Krott A. Removing speech artifacts from electroencephalographic recordings during overt picture naming. *NeuroImage*, 105: 171-180 (2015). **IF 6.132; NC: 2**
4. Tecchio F, Cancelli A, Cottone C, ... **Porcaro C**, Salustri C, Rossini PM, Priori A. Brain plasticity effects of neuromodulation against multiple sclerosis fatigue *Frontiers in neurology* Vol 6:141 doi: 10.3389/fneur.2015.00141 (2015). **IF 0; NC: 0**
5. Giambattistelli F, Tomasevic L, Pellegrino G, Porcaro C, et al. (2014). The spontaneous fluctuation of the excitability of a single node modulates the internodes connectivity: A TMS-EEG study. *Hum Brain Mapp.* 35(4): 1740-9, (2014) **IF 6.924; NC: 2**
6. **Porcaro C**, et al. Contradictory reasoning network: an EEG and fMRI study. *Plos One.* 9(3): e92835, (2014). **IF 3.534; NC: 2**
7. Abrusci VM, Casadio C, Medaglia MT, **Porcaro C**. Universal vs. particular reasoning: a study with neuroimaging techniques. *Logic Journal of IGPL.* **21SI** 1017-1027 (2013). **IF: 0.530; NC: 2**
8. Melgari JM, **Porcaro C** et al. Movement-induced uncoupling of primary sensory and motor areas in focal task-specific hand dystonia. *Neuroscience.* **250C** 434-45. (2013). **IF 3.327; NC:4**
9. Mayhew SD, Ostwald D, **Porcaro C**, Bagshaw AP. Spontaneous EEG alpha oscillation interacts with positive and negative BOLD responses in the visual-auditory cortices and default-mode network. *Neuroimage.* **76** 362-72. (2013). **IF 6.132; NC: 17**

¹ Source Citations: Google Scholar.

10. Mayhew SD, Hylands N, **Porcaro C et al.** Intrinsic variability in the human response to pain is assembled from multiple, dynamic brain processes. *Neuroimage*. **75** 68-78.(2013). **IF 6.132; NC:21**
11. **Porcaro C et al.** Multiple frequency functional connectivity in the hand somatosensory network: an EEG study. *Clin Neurophysiol.* **124** 1216-24. (2013). **IF 2.979; NC: 9**
12. Tomasevic L, Zito G, Pasqualetti P, Filippi M, **Porcaro C et al.** Cortico-muscular coherence as an index of fatigue in multiple sclerosis. *Mult Scler.* **19** 334-43 (2013). **IF 4.863; NC: 11**
13. Cottone C, Tomasevic L, **Porcaro C et al.** Physiological aging impacts the hemispheric balances of resting state primary somatosensory activities. *Brain Topogr.* **26** 186-99. (2013). **IF 2.519; NC: 5**
14. Ostwald D, **Porcaro C et al.** EEG-fMRI based information theoretic characterization of the human perceptual decision system. *PLoS One.* **7** e33896. (2012). **IF 3.534; NC: 12**
15. Tombini M, Rigosa J, **Porcaro C et al.** Combined analysis of cortical (EEG) and nerve stump signals improves robotic hand control. *Neuro. Neural Repair.* **26** 275-81 (2012). **IF3.143;NC: 15**
16. Di Pino G*, **Porcaro C* et al.** A neurally-interfaced hand prosthesis tuned inter-hemispheric communication. *Restor. Neurol. Neurosci.* **30** 407-18. *Equal contribution to the work. **IF 4.179;NC: 15**
17. Lei X, Ostwald D, Hu J, Qiu C, **Porcaro C et al.** Multimodal functional network connectivity: an EEG-fMRI fusion in network space. *PLoS One.* **6** e24642 (2011). **IF 3.534; NC: 31**
18. **Porcaro C et al.** The relationship between the visual evoked potential and the gamma band investigated by blind and semi-blind methods. *NeuroImage.* **56** 1059-71(2011). **IF 6.132; NC: 12**
19. Ostwald D, **Porcaro C**, Bagshaw AP. Voxel-wise information theoretic EEG-fMRI feature integration. *NeuroImage.* **55** 1270-1286 (2011). **IF 6.132; NC: 9**
20. **Porcaro C et al.** Functional Source Separation improves the quality of single trial visual evoked potentials recorded during concurrent EEG-fMRI. *NeuroImage.* **50** 112-23(2010). **IF 6.132;NC:19**
21. Ostwald D. **Porcaro C**, Bagshaw AP. An information theoretic approach to EEG-fMRI integration of visually evoked responses. *NeuroImage.* **49** 498-516 (2010). **IF 6.132; NC: 39**
22. Medaglia MT, Tecchio F, Seri S, Di Lorenzo G, Rossini PM, **Porcaro C.** Contradiction in universal and particular reasoning. *Human Brain Mapping.* **30** 4187-97 (2009). **IF 6.924; NC: 10**
23. **Porcaro C et al.** Choice of multivariate autoregressive model order affecting real network functional connectivity estimate. *Clinical Neurophysiology.* **120** 436-48 (2009). **IF 2.979; NC: 20**
24. **Porcaro C et al.** Hand somatosensory sub-cortical and cortical sources assessed by FSS: an EEG study. *Human Brain Mapping.* **30** 660-674 (2009). **IF 6.924; NC: 39**
25. Tecchio F, Melgari JM, Zappasodi F, **Porcaro C et al.** Sensorimotor integration in focal task-specific hand dystonia: a MEG assessment. *Neuroscience.* **154** 563-71 (2008). **IF 3.327; NC:17**
26. Tecchio F, Zappasodi F, **Porcaro C et al.** High gamma band activity of primary hand cortical areas: a sensorimotor feedback efficiency index. *NeuroImage.* **40** 256-64(2008). **IF 6.132; NC:34**
27. Barbati G, **Porcaro C et al.** Functional Source Separation applied to induced visual gamma activity. *Human Brain Mapping.* **29** 131-141 (2008). **IF 6.924; NC: 17**
28. **Porcaro C et al.** Hand sensory-motor cortical network assessed by Functional Source Separation. *Human Brain Mapping.* **1** 70-81 (2008). **IF 6.924; NC: 23**
29. Tecchio F, **Porcaro C et al.** Functional Source Separation and hand cortical representation for BCI feature extraction. *Journal of Physiology (London)* **580** 703-721 (2007). **IF 4.544; NC: 32**
30. Tecchio F, Graziadio S, Barbati G, **Porcaro C et al.** Somatosensory dynamic gamma band synchrony: a neural code of sensorimotor dexterity. *NI* **35** 185-93 (2007). **IF 6.132; NC: 20**
31. Tecchio F, Zappasodi F, Melgari JM, **Porcaro C et al.** Sensory-motor interaction in primary hand cortical areas: a MEG assessment. *Neuroscience* **141** 533-542 (2006). **IF 3.327; NC: 22**
32. Barbati G, Sigismondi R, Zappasodi F, **Porcaro C et al.** Functional Source Separation from magnetoencephalographic signals. *Human Brain Mapping.* **134** 95-101 (2006). **IF 6.924 NC: 37**

33. Tecchio F, **Porcaro C et al.** Cortical short-term fatigue effects assessed via rhythmic brain-muscle coherence. *Experimental Brain Research*. **174** 144-151 (2006). **IF 2.168; NC: 36**
34. **Porcaro C et al.** Fetal auditory responses to external sounds and mother's heart beat: detection improved by ICA. *Brain Research*, **1101** 51-58 (2006). **IF 2.828; NC: 28**
35. Salustri C, Barbati G, **Porcaro C.** Fetal Magnetocardiographic signals extracted by 'signal subspace' BSS. *IEEE Trans Biomed Eng.* **52** 1140-42 (2005). **IF 2.233; NC: 18**
36. Barbati G, **Porcaro C et al.** Optimization of an independent component analysis approach for artifact identification and removal in magnetoencephalographic signals. *Clinical Neurophysiology*. **115** 1220-1232 (2004). **IF 2.979; NC: 157**

Peer reviewed Proceedings

1. Coppola G, **Porcaro C**, Pierelli F, Seri S, Tecchio F, Di Lorenzo G (2015). Hand somatosensory sub-cortical sources are hypoactive in migraine interictally: a functional source separation analysis CEPHALALGIA 35, 218-219
2. **Porcaro C**, Di Lorenzo G, Seri S, Pierelli F, Tecchio F, Coppola G. (2015). Sub-cortical sources of the somatosensory pathway are hypoactive in migraine interictally: a Functional Source Separation analysis The Journal of Headache and Pain 16 (Suppl 1), A55
3. Coppola G, **Porcaro C**, Pierelli F, Seri S, Tecchio F, Di Lorenzo G. Hand somatosensory subcortical sources are hypoactive in migraine interictally: a functional source separation analysis CEPHALALGIA (2015) 35, 218-219
4. **Porcaro C**, Di Lorenzo G, Seri S, Pierelli F, Tecchio F, Coppola G. (2015). Hand somatosensory Functional Source Separation (FSS) analysis reveals hypoactive sub-cortical source signals in migraine interictally, 60° Congresso Italiano della Società Italiana di Neurofisiologia Clinica, 20-23 May, Verona, Italy.
5. Miraglia F, Vecchio F, **Porcaro C**, Cottone C, Cancelli A, Rossini PM, Tecchio F. (2015). Sensory-motor networks' topology in multiple sclerosis fatigue, 60° Congresso Italiano della Società Italiana di Neurofisiologia Clinica, 20-23 May, Verona, Italy.
6. **Porcaro C**, Medaglia MT, Krott A. (2015). Speech artifacts removal from EEG recordings during overt picture naming: comparison across methods. Organization for Human Brain Mapping (OHBM), June 14-18, Honolulu, Hawaii.
7. Cottone C., **Porcaro C.**, Cancelli A, Olejarczyk E, Salustri S, Tecchio F. (2015). In the brain, dynamics means identity: neuronal electrical Activity as cortical Area Fingerprint. Organization for Human Brain Mapping (OHBM), June 14-18, Honolulu, Hawaii.
8. Cogliati Dezza I, Zito G, Tomasevic L, Filippi MM, Ghazaryan A, **Porcaro C**, Squitti R, Ventriglia M, Lupoi D, Tecchio F. (2015). Functional and structural balances of homologous sensorimotor regions in multiple sclerosis fatigue. Organization for Human Brain Mapping (OHBM), June 14-18, Honolulu, Hawaii.
9. **Porcaro C**, Coppola G, Pierelli F, Tomasevic L, Salustri C, Tecchio F (2014). Multiple frequency functional connectivity in the hand somatosensory network: An EEG Study. 30th International Congress of Clinical Neurophysiology (ICCN) of the International Federation of Clinical Neurophysiology (IFCN) March 20-23, 2014.
10. Cottone C, Tomasevic L, **Porcaro C**, Filligoi G, Tecchio F (2013). Physiological Aging Impacts the Hemispheric Balances of Resting State Primary Somatosensory Activities. SISMEC, 25-28 settembre 2013.
11. Mayhew S.D., Mullinger K.J., **Porcaro C.**, Bowtell R., Bagshaw A.P., Francis S.T. (2013). Trial-by-trial Global Modulation of BOLD Responses to Simple, Sensory Stimuli: Implications for Functional Brain Imaging and Understanding Positive and Negative BOLD Response Coupling ISMRM, Salt Lake City.
12. Mayhew SD, Ostwald D, **Porcaro C**, Bagshaw AP (2012). Non-linear modulation of both positive and negative fMRI responses to visual stimulation by pre-stimulus occipital EEG alpha power. #2992 Proc ISMRM 2012.

13. Mayhew SD, Hylands-White N, **Porcaro C**, Bagshaw AP (2012). Resting-state functional connectivity predicts the amplitude of the BOLD response to thermal pain stimulation in humans. #2939 Proc ISMRM 2012.
14. **Porcaro C**, Medaglia MT, Di Lorenzo G, Seri S, Tecchio F (2012). *‘La contraddittoria aristotelica nel ragionamento: uno studio Elettroencefalografico’ (Translation: The Aristotelian contradiction in human reasoning: an EEG study)*. IX Convegno Nazionale AISC-Associazione Italiana di Scienze Cognitive, Rome 3,4,5 December 2012, Italy. **(Selected as oral Presentation)**
15. **Porcaro C**, Medaglia MT, Meyer AS, Krott A (2012). *‘Attivazione spazio-temporale dell’attività cerebrale durante interferenza semantica dopo la rimozione degli artefatti muscolari: uno studio EEG’ (Translation: Spatio-temporal activation of brain activity during semantic interference after muscle artifacts removal: an EEG study)*. IX Convegno Nazionale AISC-Associazione Italiana di Scienze Cognitive, Rome 3,4,5 December 2012, Italy. **(Selected as oral Presentation)**
16. **Porcaro C**, Coppola G, Pierelli F, Tomasevic L, Salustri C, Tecchio F (2012) Multiple frequency effective connectivity in the hand somatosensory network. In: The 18th Annual Meeting of the Organization for Human Brain Mapping (OHBM). Beijing, China, June 10-14.
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