



Franca Tecchio

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ABOUT ME

Biosketch

Franca Tecchio was born and grew up in Milan in a serious and work lover environment, and considered Rome her adoptive city, fascinated by the fatalistic and intuitive approach. Graduated in Physics, she is **Director of Research** at the Italian National Research Council (**Cnr**), where she **leads the Let's** - Laboratory of Electrophysiology for Translational neuroScience, active at Gemelli Hospital, after 18 years at Fatebenefratelli Hospital. With magneto- and electro-encephalo- and -myo-graphy (MEG, EEG, EMG) and non-invasive neuromodulation techniques that modify neuronal electrical activity, Let's develops methods of brain complexity analysis and therapeutic interventions via **personalized Electroceuticals**.

Among the 10 most active Italian researchers in Clinical Neurology on 'La Repubblica Salute' (2003), in 2016 she contributes to an article on neuromodulation in 'Il Venerdì di Repubblica', one of the most read weekly magazines in Italy. **PI of 33** projects funded; Peer Reviewer for 26 international journals, **Expert Evaluator of 23 European** funding requests (including 1 ERC), Editorial Board Member of Brain Topography (2022, present), Associate Editor in Frontiers in Fractal Physiology (2020, present) and of Restorative Neurology and Neuroscience (2012-2018), **Chairwoman in 10** and **Invited Speaker in 78** International congresses and 14 meetings for European projects.

Director of Studies of 13 PhD and 22 Master students, Discussant 1 PhD student at Delft University, The Netherlands.

She is the author of **149 peer-reviewed papers**, [ORCID](https://orcid.org/0000-0002-1325-5059) (0000-0002-1325-5059), whose citations you can track at [Franca Tecchio Goole Scholar](https://scholar.google.com/citations?user=franca_tecchio) - H index 52, citations 7918

[Franca Tecchio Scopus](https://scopus.com/authors/details/franca_tecchio) - H index 45, citations 5680

She talked a [TEDxCNR](https://www.tedx.cnr.it/) – October 8, 2016 - with more than 488.000 views although in Italian.

Core expertise

- [Precision Electroceuticals](#) (Top10Tech by World Economic Forum 2018)
- **Non-invasive electrophysiology:** magneto- and electro-encephalography and-myography (MEG, EEG, EMG), fractal dimension, Functional Source Separation (FSS), feedback-synchrony-plasticity, morphology
- **Neuromodulation:** the change of excitability of neuronal targets thus changing their relationship with other areas and consequently behavior, by non-invasive brain stimulation (NIBS) via transcranial magnetic and electrical stimulation (TMS, tES: tDCS / tACS / tRNS / transcranial Individual neuroDynamics Stimulation, tIDS)
- **Personalization:** Population- and individual-based adaptation of therapeutic strategies

Scientific Activity

- Translational electroceutical strategy: exploring the time course of the electrical activity, the neurodynamics, of selected neuronal pools to implement personalized neuromodulation treatments compensating for alterations associated with the invalidating symptoms
- Biomarkers for critical physiological phenomena by feature extraction [Functional Source Separation, FSS] of neurodynamics and functional connectivity (local and long-range intra-cortical, and cortico-muscular neuronal synchronization)
- Object-dependent feedback, synchrony, plasticity as triadic principle that governs the neuronal networks at multiple scales
- Imaging of the human brain, with multimodal integration of electrophysiological data with anatomical (MRI), metabolic/vascular (fMRI / Transcranial Color Doppler - TCD), and biochemical data
- Fatigue, stroke, depression, epilepsy, multiple sclerosis

● WORKING EXPERIENCE

2021 – CURRENT, Rome, Italy (1.1.2021)

DIRECTOR OF RESEARCH – ISTITUTO DI SCIENZE E TECNOLOGIE DELLA COGNIZIONE (ISTC), NATIONAL RESEARCH COUNCIL (CNR)

09/2019 – CURRENT, Rome, Italy

COURSE COORDINATOR PROFESSOR Cognitive Processes and Technologies- Faculty of Psychology, INTERNATIONAL TELEMATIC UNIVERSITY UNINETTUNO

2008 – 2016, Rome, Italy

SCIENTIFIC COLLABORATOR – UNIT OF NEUROIMAGING, IRCCS SAN RAFFAELE

2007 – 2020, Rome, Italy (1.1.2007)

SENIOR STAFF RESEARCHER (TENURE) – NATIONAL RESEARCH COUNCIL OF ITALY (CNR), LABORATORY OF ELECTROPHYSIOLOGY FOR TRANSLATIONAL NEUROSC

2001 – 2007, Rome, Italy

CNR STAFF RESEARCHER (TENURE) – ISTITUTO DI SCIENZE E TECNOLOGIE DELLA COGNIZIONE (ISTC), NATIONAL RESEARCH COUNCIL (CNR)

2000 – 2016, Rome, Italy

RESEARCH COORDINATOR: FUNCTIONAL BIOTECHNOLOGIES PROGRAM – FATEBENEFRATELLI HOSPITAL

1999 – CURRENT, Rome, Italy

LABORATORY COORDINATOR – LABORATORY OF ELECTROPHYSIOLOGY FOR TRANSLATIONAL NEUROSCIENCE (LET'S – ISTC– CNR)

1996 – 2001, Rome, Italy

TENURE TRACK – INSTITUTE OF SOLID STATE ELECTRONICS, ITALIAN NATIONAL RESEARCH COUNCIL

1991 – 1993, Rome, Italy

CNR FELLOW – INSTITUTE OF SOLID STATE ELECTRONICS, NATIONAL RESEARCH COUNCIL

'Cryogenic and superconducting technologies: Superconducting instrumentation for biomagnetism'.

Project head: Prof. Gian Luca Romani.

1990 – 1991, Milan, Italy

MEDICAL PHYSICS FELLOW – NIGUARDA HOSPITAL

● EDUCATION AND TRAINING

2009 – Rome, Italy

COURSE OF RESEARCH MANAGEMENT AND EMPOWERMENT – Consiglio Nazionale della Ricerca (CNR) One week course on research management and empowerment 'Corso di Management e Valorizzazione della Ricerca' (CoMe Va la ricerca, <http://www.comeva.cnr.it/>). Ninety participants were admitted to the course in a selection among Italian CNR researchers.

Training course given by the CNR, Italy, Dept. for Scientific and Technological activities (CNR-DAST), on "Preparation, process and financial management of research and development projects within the national

grants for the enterprise research" (D.Lgs. 297/99) on laws regulating the relationship between CNR and the small and medium-sized enterprises (SME) and spin-off processes

1993 – Rome, Italy

SPECIALIZATION COURSE – La Sapienza

Specialization course on "Methods for Biomedical images and signals analysis" given by an Inter-departmental Centre of "La Sapienza" University of Rome. Final thesis topic: 'An Artificial Neural Network (ANN) to discriminate demented patients from healthy people using qEEG parameters'.

1991 – Bressanone, Italy

SUMMER SCHOOL "Neuroscience and Science of Artificial: from the neuron to Intelligence"

1990 – Milan, Italy

ITALIAN UNIVERSITY DIPLOMA (LAUREA) IN PHYSICS – Università degli Studi di Milano

1989, Altenberg, Germany

SUMMER SCHOOL

VII International summer session NUFFIC (Netherlands Foundation for International Cooperation) – on Statistical mechanics treatment of dynamic systems: critical phenomena, phase transition and computer simulation in statistical physics.

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

UNDERSTANDING

Listening

Reading

SPEAKING

Spoken
production

Spoken
interaction

WRITING

ORGANISATIONAL SKILLS

Leadership: Director of studies of 13 PhD and 24 Master students, Elected member of ISTC Institutional Board (2020), Person in charge for ISTC-CNR in the collaboration agreements with Catholic University of Sacred Heart (UCSC), University of Chieti, TIRES of the University of Bari.

- Organizational skills: Co-chair of the international meeting BrainSTIM 2019, <https://www.brainstim-meeting.org/>, Chairperson of 5 Main Symposium, Local Scientific Organizing Committee Member in 3 International Congresses
- Team-leading skills: PI and manager of 32 projects funded as detailed below

COMMUNICATION AND INTERPERSONAL SKILLS

- Chairwoman in 13 International congresses
- Speaker in 78 International congresses
- Speaker in 14 meetings for European projects
- Radio Broadcasting and a TEDx talk

JOB-RELATED SKILLS

- Translational electroceutical approach: listening to the brain electrical activity in physiological and pathological conditions via EEG, MEG, EMG, TMS to identify indices sensitive to alterations in – especially neurological– pathologies, to discover personalized compensatory treatments or to enhance diagnosis or to monitor treatment effects.
- Neural source identification [Functional Source Separation, FSS] and functional connectivity [local and long-range intra-cortical and cortico-spinal neuronal synchronization] through electrophysiological non-invasive recordings (MEG, EEG, EMG).
- Study of neural plasticity, synchrony, feedback and recovery from neurological damage
- Neuromodulation procedures (TMS, tES: tDCS/tACS/tRNS/tIDS).
- Human brain imaging, with multimodal integration of electrophysiological data with anatomical (MRI), metabolic/vascular (fMRI/Transcranial Color Doppler - TCD) and biochemical data.

FUNDING AWARDS (TOTAL NUMBER 33)

2019-2022 Cnr-Conindustria, borsa di dottorato industriale a tema vincolato 'Un trattamento di Precision Electroceuticals: curare la fatica nella sclerosi multipla con neuromodulazione personalizzata domiciliare', Cnr-IGEA, Eugenia Gianni

2019-2022 Convenzione Univ. Chieti-Istc Cnr, borsa di dottorato in Neuroscienze e Imaging, Massimo Bertoli

2016-18 Fondazione Italiana Sclerosi Multipla (FISM), 'Fatigue Relief in Multiple Sclerosis by means of a Customized Neuromodulation Home treatment [FaReMuS CuNe-H]. ' [Cod. 2015/R/3].

i. Total Grant € 40.000 (PI Franca Tecchio);

ii. Unit Grant € 30.000 (Unit PI Franca Tecchio)

2013-2016 Ministry of University and Research (MIUR), Projects of Relevant National Interest (PRIN), 'Functional connectivity and neuroplasticity in physiological and pathological aging [ConnAge]' Cod. 1182 / Ric/V o prot. 2010SH7H3F

- i. Total Grant € 725.000 (PI Paolo M. Rossini);
- ii. Unit Grant € 108.000 (Unit PI Franca Tecchio)

2012-2013 Fondazione Italiana Sclerosi Multipla (FISM), 'Fatigue Relief in Multiple Sclerosis by transcranial Direct Current Stimulation (tDCS): can we Differentiate stimulation Targets within the primary sensorimotor cortices? [FaReMuS DiCDiT].' [Cod. 2011/R/32].

- i. Total Grant € 24.000 (PI Franca Tecchio);
- ii. Unit Grant € 13.900 (Unit PI Franca Tecchio)

2011-2012 Fondazione Italiana Sclerosi Multipla (FISM), '**Fatigue relief in Multiple Sclerosis by Neuromodulation: a transcranial Direct Current Stimulation (tDCS) intervention.** [FaMuSNe] [Cod.2010/R/38].

- i. Total Grant € 30.000 (PI Franca Tecchio);
- ii. Unit Grant € 12.000 (Unit PI Franca Tecchio)

2011-2014 Ministry of Health, '**Promoting recovery from Stroke: Individually enriched therapeutic intervention in Acute phase**' [ProSIA].

- i. Total Grant € 585.923 (PI Filippo Zappasodi)
- ii. Unit Grant € 210.941 (UPI Franca Tecchio)

2010-2011 CNR - Ricerche a Tema Libero: 'Maturazione corticale, corporea e cognitiva nell'individuo sano: caratterizzazione neuroPsiologica e psicometrica'.

- i. Total Grant € 7.000 (PI Franca Tecchio)

2010-2012 The Royal Society, 'The Key Movement Controllers: an EEG/fMRI study of the hand network dynamics' [KeyMoCo]. Total Grant € 12.000 (PI Andrew Bagshaw and Franca Tecchio)

2009-2010 Fondazione Italiana Sclerosi Multipla (FISM), 'Fatigue in Multiple Sclerosis: is there a neuroanatomic and functional proble? [FaMuS] [Cod.2009/R/23].

- i. Total Grant € 60.000 (PI Paolo M Rossini)

2008-2012 European Union, COLLABORATIVE PROJECT FP7-HEALTH-2007-A 'Hybrid MEG-MRI Imaging System' [MEGMRI] [N. 200859].

- i. Total Grant € 6.843.615 (PI Risto Ilmoniemi)
- ii. Unit Grant € 147.840 (UPI Paolo M Rossini)

2008-2011 CNR - Ricerche a Tema Libero: 'Roles of cortical excitement and oxidation in stress in the pathogenes of depression'.

- i. Total Grant € 55.000 (PI Carlo Salustri)

2008-2010 Research funds Universtà Campus Bio-Medico di Roma, 'Fusion of Brain Analysis and Bio-inspired Robotic Control for Enhancing Manipulation Capabilities of a Prosthetic Hand' [BrainHand].

- i. Total Grant € 200.000 (PI Loredana Zollo);
- ii. Unit Grant € 42.000 (Unit PI Mario Tombini);

2007-2009 Ministry of Health and Higher Institute of Labor Security, Prevention and Safety. (ISPESL): 'Factors of Risk for neuromuscular and skeletal pathologies in video terminal operators' [PMS/40/06].

- i. Total Grant € 174.000 (PI Maurizio Ferrarin);
- ii. Unit Grant € 35.128 (Unit PI Franca Tecchio);

2007-2009 Ministry of University Research (MIUR), Project for National Relevant Interests (PRIN), 'Plasticity in cortical circuits of healthy subjects with neurological pathologies; the influence on the processes during sleep' [2006062871].

- i. Total Grant € 34.000 (PI Vittorio Pizzella);

2006-2008 Ministry of Health, IRCCS Research grant, 'Biological and genetic profile of metal dysfunction in Alzheimer's disease and in 'Mild Cognitive Impairment'' [RF 06]

- i. Total Grant € 600.000 (PI Paolo M. Rossini);
- ii. Unit Grant € 200.000 (Unit PI Rosanna Squitti);

2006-2008 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. An integrated study on neurophysiology and neuroimaging.'

- i. Total Grant € 90.000 (PI Antonio Uncini);
- ii. Unit Grant € 24.000 (Unit PI Fabrizio Vernieri);

2006-2008 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.'

- i. Total Grant € 250.000 (PI Gian Luca Romani);
- ii. Unit Grant € 54.000 (Unit PI Paolo M. Rossini);

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

- i. Total Grant € 15.000 (PI Olivier Tonet);

2005-2007: Ministry of Health, IRCCS Research grant, 'Identification of early biological markers for Alzheimer's Dementia: Genomics and proteomics of neurodegeneration [RF 05]

- i. Total Grant € 70.000 (PI Paolo M. Rossini);
- ii. Unit Grant € 30.000 (Unit PI Rosanna Squitti);

2005-2007: Seragnoli Foundation, 'Phenotype profile associated with genetic variants implied in Autism Spectrum Disorders'.

- i. Total Grant € 50.000 (PI Paolo m. Rossini);

2004-2006: Ministry of Health, Research grant, 'Neuroplasticity during aging: neurophysiological assessment in relationship with sexual hormones and cytokines' [codice]

- i. Total Grant € 170.000 (PI Cirese);
- ii. Unit Grant € 26.000 (Unit PI Franca Tecchio);

2004-2008: 6th Framework Programme European Community, European IST/FET Integrated Project NEUROBOTICS- The fusion of NEUROscience and robotICS.

- i. Total Grant € 2.900.000 (PI Paolo Dario);
- ii. Unit Grant € 80.000 (Unit PI Paolo M. Rossini);

2004-2006: Institute for prevention and industrial safety (ISPESL), 'Magneto- and electro-encephalographic electromyographic coherence: physiological features and effects of therapeutic intervention in sensorimotorial dysfunctions correlated to specific professional occupations (Dupuytren Syndrome, Carpal Tunnel Syndrome, Dystonia).

- i. Total Grant € 50.000 (Unit PI Paolo M. Rossini);

2003-2006: Ministry of University and Research (MIUR), Funds for Basic Research (FIRB) 'Sensory-motor and cognitive cerebral plasticity: integrated functional imaging'.

- i. Total Grant € 1.100.000 (PI Daniela Perani);
- ii. Unit Grant € 140.000 (Unit PI Paolo M. Rossini);

2003-2005: Ministry of University and Research (MIUR), Projects of Relevant National Interest (PRIN) 'Identification of early biological, hemodynamic and neurophysiological markers to predict clinical recovery level in patients affected by unilateral stroke'.

- i. Total Grant € 156.000 (PI Paolo M. Rossini);

2003-2005: Ministry of Health, IRCCS Research grant, 'Fronto-temporal dementia and associated

movement disorders' [RF03 FTD PS/03/10]

- i. Total Grant € 120.000 (PI Massimo Gennarelli);
- ii. Unit Grant € 40.000 (Unit PI Franca Tecchio);

2003: Ministry of Health, IRCCS Research grant, Oasi Maria SS 'New neurophysiological paradigms for the study of perceptive and executive alterations in Autism Spectrum Disorders' – 'Neurobiological basis of Autism: new diagnostic methods and pharmacological treatments'.

- i. Total Grant € 80.000 (PI Maurizio Elia);
- ii. Unit Grant € 30.000 (Unit PI Franca Tecchio);

2002-2004: Ministry of University and Research (MIUR), Projects of Relevant National Interest (PRIN) 'Neuroimaging integrated techniques for the study of cognitive functions: analysis of memory principal components in normal and pathological aging'.

- i. Total Grant € 60.000 (PI Paolo M. Rossini);
- ii. Unit Grant € 20.000 (Unit PI Carlo Salustri);

2002: Institute for prevention and industrial safety (ISPESL), Research grant 'Neurophysiological implications of acute and chronic exposure to noise'

- i. Total Grant € 160.000 (PI Paolo M. Rossini);

2002-2004 Telethon Project: "Quantitative EEG/MEG analysis for objective assessment of Alzheimer disease: From diagnosis to treatment evaluation";

- i. Total Grant € 60.000 (PI Claudio Babiloni);
- ii. Unit Grant € 20.000 (Unit PI Carlo Salustri);

2001-2003: Ministry of Health, IRCCS Research grant, C. Mondino Neurological Institute Foundation 'Central and peripheral mechanism of muscle fatigue: physiological and pathological features'.

- i. Total Grant € 175.000 (PI dir. ScientiPco Mondino);
- ii. Unit Grant € 40.000 (Unit PI Paolo M. Rossini);

2001-2003: Ministry of Health, IRCCS Research grant, Centro San Giovanni di Dio 'New strategies for the identification of susceptibility genes of mood disorders'. [R01]

- i. Total Grant € 120.000 (PI Massimo Gennarelli);
- ii. Unit Grant € 40.000 (Unit PI Carlo Salustri);

1999-2002: Ministry of Labour, Research grant 'Quantitative evaluation of the effects of stress-induced by environmental sensory disturbances in workers at risk'

- i. Total Grant € 620.000 (PI Paolo M. Rossini);

Finalized Funding Requests – (Funding source – Project Title, submission date)

- ICLEI (<https://iclei-europe.org/funding-opportunities/action-fund/>)- Protect Children's Resilience via Cognitive Schools Buildings to reduce Emissions in Rome (CReaSER), set 2022
- PRIN - Individual Brain Neurodynamics Tunes personalized Neuromodulation [INTuNe], mar 2022 [2022EC433H, PENDENTE in attesa di risposta]
- PNRR PE6 - A Multimodal precision treatment by Electroceuticals & Nutraceuticals to support fitting lifestyle and diet in complex people with cardiovascular comorbidities [MELENX] , feb 2022

SCIENTIFIC RESPONSIBILITIES

2022-present EDITORIAL BOARD MEMBER for the journal *Brain Topography* IF2021 4.275

2020-present Person in charge for ISTC-CNR, in the collaboration agreement with DNISC dell'Università G. D'Annunzio, Chieti-Pescara.

2020-present Person in charge for ISTC-CNR, in the collaboration agreement with 'Università Cattolica Del Sacro Cuore (Catholic University of Sacred Heart UCSC) - Hospital 'Gemelli'.

2020- present ASSOCIATE EDITOR for the journal *Frontiers in Network Physiology* IF2020 4.134

2020- present REVIEW EDITOR di Frontiers in Human Neuroscience, Section 'Cognitive Neuroscience' IF2020 3.209

2016-2019 Person in charge for ISTC-CNR, in the collaboration agreement with 'Università Cattolica Del Sacro Cuore (Catholic University of Sacred Heart UCSC) - Hospital 'Gemelli'.

2013-present Associate Editor of RESTORATIVE NEUROLOGY AND NEUROSCIENCE, RNN journal

2003-2008: Head of Research ISTC-CNR, in a collaboration agreement with the Centre of Excellence "Innovative Technologies for the Revelations and Elaborations of Signals" (TIRES) - University of Bari.

2003-2016: Person in charge for ISTC-CNR, in the collaboration agreement with S. Giovanni Calibita – Fatebenefratelli Hospital.

Peer Reviewer (total number of journals 26)

for scientific journals: American Journal of Physical Medicine & Rehabilitation, Annals of Neurology, Biological Psychiatry, Brain Research Bulletin, Brain Research, Brain topography, Brain, Cerebral Cortex, Cortex, Clinical Journal of Pain Clinical Neurophysiology, European Journal of Neuroscience, Experimental Brain Research, Human Brain Mapping, Journal of Applied Physiology Journal of Neurophysiology, Medical Engineering & Physics, Neurobiology of Aging Neuroimage, Neurological Sciences, Neurorehabilitation and Neural Repair, Neuroscience, The Neuroscientist, Neuroscience Letters, Plos One, Restorative Neurology and Neuroscience, ScientiPc Reports [Nature group], The Clinical Journal of Pain.

From 1995-1996 collaborated with editorial contributions to 'Electroencephalography and Clinical Neurophysiology', Europe and Asia Editor in Chief: Prof. Paolo M. Rossini.

External Expert for Grant and Prize assignments (23 grants and 1 prize):

from International and National Institutions

1. Nominating Prof. Dr. Rafael Polania for the Latsis Prize, Referee by ETH Zurich (June 2022)
 3. *Belgium* Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO) *FWO*. Application numbers: G093616N 2015; G092918N 2017; G088918N2017;
 1. *European Research Council ERC* Advanced Grant 2015 ECOBRAIN;
 1. *Danish Council for Independent Research* | Medical Sciences (01-2015 DFF-Advanced Grant 4183-00460A);
 3. *Swiss National Science Foundation* (2021 208054; 2017 32IC30_173559; 04-2014, P2SKP3_155045);
 1. *Osterreich FWF* Fonds zur Förderung der wissenschaftlichen Forschung (03-2013, P25783);
 1. *Deutsche Forschungsgemeinschaft-DFG*, 'FWF Der Wissenschaftsfonds' -Fonds zur Förderung der wissenschaftlichen Forschung- Germany (07-2008);
 1. Suomen Akatemia- *Akademy of Finland* (02-2007);
 1. *Medical Research Council-UK* (07-2006).
- And National:*
1. ScientiPc Independence of young Researchers SIR MIUR (11-2014; RBS114AFG1);
 10. *Fondazione Italiana Sclerosi Multipla*, FISM 4 Call 2018, 2 Call 2017, 4 Call 2015.

In 2003, Dr. Tecchio's name appeared in the list of the most active researchers in the neurology field, compiled by the weekly magazine 'La Repubblica Salute' on the basis of a survey of the international literature.

President of the commission for staff of tenure positions (2)

2016 Public selection for the awarding of n. 1 Research grant in the scientiPc area "Personalization of

neuromodulation treatments for the treatment of neurological damage".

2015 Public selection for the awarding of n. 1 scholarship for graduates for research in the scientific area "Personalization of neuromodulation treatments for the treatment of neurological damage".

Local Scientific Organizing Committee Member (4)

2020 Scientific Committee evaluating the submitted works at the international meeting online instead of in Helsinki, BrainSTIM 2020 <https://www.brainstim-meeting.org/>

2019 Co-chair of the international meeting BrainSTIM 2019, satellite of the OHBM 2019, <https://www.brainstim-meeting.org/>

2006 International Congress on Human Brain Mapping-HBM2006 Florence, Italy, June 11-15.

2004 National Congress of the Italian Society of Clinical Neurophysiology-SINC, Roma, Italy, June 17-20.

Chairperson of Main Symposium (5) or sessions (8)

2019 LOC Symposium 'Personalized Neurostimulation', BrainSTIM 2019, June 8, Rome, Italy
Invited: Claudio Grassi, UCSC, Rome Italy; Rafael Polania, ETH Zurich, Swiss; Filippo Zappasodi, Univ. Chieti, Chieti, Italy; Paola Marangolo, Santa Lucia IRCCS Univ. Naples, Italy; Grazia Madeo, Univ. Milan, Italy; Marina De Tommaso, Univ. Bari, Italy; Leigh Charvet, CUNY, New York USA; Giovanni Assenza, UCBM, Rome, Italy.

2017 BaCI Conference Symposium 'Listening to the brain to personalize interventions - LiB2PI -' Basic and Clinical multimodal Imaging, September 1, Bern, Swiss
Invited: Risto Ilmoniemi, Aalto University School of Science- Finland; Frank Scharnowski, University of Zürich-Switzerland; Antoni Valero Cabre, CNRS – INSERM, UPMC Paris, France; Hartwig Roman Siebner, DRUMR, Copenhagen University Hospital Hvidovre, Denmark; Franca Tecchio, National Research Council, Italy

2010 International Congress on Clinical Neurophysiology (ICCN2010), Kobe, Japan, 'Sensorimotor integration'

2009 EU project MEGMRI - Brainstorming workshop 'The dream you can realize through the hybrid MEGMRI system: identifying the 'killer application' of the new-generation scanner.': invited speakers N Logothetis, M Caulo, M Tosetti, PM Rossini, G Rizzolatti.

2006 HBM2006 Florence, Italy, 'Neuromodulation to Promote Recovery from Stroke: are there neuroimaging markers to direct adjunctive interventions?', invited speakers M Corbetta, L Cohen, A Pascual-Leone.

Congress Chairwoman (8)

2022 'Neurodynamics Exploration tunes Neuromodulation to relieve Chronic Fatigue', 32^o International Congress of Clinical Neurophysiology (ICCN), 7 September, Geneva, Swiss

2021 'BioPsica e Fisica Medica', Società Italiana di Fisica, 13 September, Online

2010 'Sensorimotor integration' session, International Congress on Clinical Neurophysiology (ICCN2010), Kobe, Japan

2009 EU project MEGMRI - Brainstorming workshop 'The dream you can realize through the hybrid MEGMRI system: identifying the 'killer application' of the new-generation scanner.': invited speakers N Logothetis, M Caulo, M Tosetti, PM Rossini, G Rizzolatti.

2006 Oral session 'Brain Imaging in Clinical Neurological Pathologies', International Society for Brain Electromagnetic Topography (ISBET) September 27-30 2006, Chieti, Italy

2006 Oral session 'Clinical application of MEG investigation', International Conference on Non-invasive Functional Source Imaging (NFSI) June 10-13 2003, Chieti, Italy.

- 2005 Poster session 'MEG-EEG-TMS integration', Italian Society of Clinical Neurophysiology-SINC, Rome, Italy
- 2004 Oral session 'Functional Bioimaging', National Congress AFaR, Milan, Italy.

Invited speaker (78)

1. 2022 'Elettroceutica: ascolto ed intervento', Workshop: Microelettronica per la Salute, Spienza University, Rome, Italy
2. 2022 'Basi neurofisiologiche del segnale EEG', Italian Society of Clinical Neurophysiology (SINC) and Lega Italiana Contro l'Epilessia (LICE), Rome, Italy
3. 2022 'Physiological Activity in the Human Sensorimotor Cortex: Oscillations or Fluctuations?', 32o International Congress of Clinical Neurophysiology (ICCN), September 8, Geneve, Swiss
4. 2022 'Personalized Electroceuticals relieve Chronic Fatigue', 32o International Congress of Clinical Neurophysiology (ICCN), September 7, Geneve, Swiss
5. 2022 'Cortico-muscular synchronization dependence on age, body side and visual feedback', International Summer Institute of Network Physiology By Plamen Ivanov (ISINP), 28 July, Como, Italy
6. 2022 'Neuromodulazione: empowerment personalizzato di riabilitazione neuromotoria', Villa Sarina ASP visit, 7 July, Alcamo (PA), Italy
7. 2022 'Goal! Rete! dritte dalle reti neurali per fare goal', Associazione Ipazia, 20 May, Crema, Italy
8. 2022 'Feedback-sincronia-plasticità: Allenamento del pensiero e Neuromodulazione', Neurowebinar, 22 March, Online
9. 2022 'Simple, the brain complexity!', Complexity Seminars by Livio Conti -UTIU, 15 March, Online
10. 2021 'The view of adoptive parents', IEEE WIE International Leadership Summit, 2 December, Genova, Italy
11. 2021 'Neuronal networks and Electroceuticals', Società Italiana di Fisica, 16 September, Online 2021 'UBUNTU, lo sbadiglio del Leone', AreaAperta di Pisa, 20 May, Online
12. 2021 'Simple, the brain complexity!', CREF Centro Ricerche Enrico Fermi, May 7, Roma, Italy
13. 2021 'Electroceuticals the cure of ailments by electrical signals', INDAM Istituto Nazionale di Alta Matematica, April 14, Online
14. 2021 'Exploring individual neurodynamics to tune personalized neuromodulations [DynaMo]', Neurowebinar, November 11, Online
15. 2021 'LetsCnr Ucsc collaboration', UCSC Gemelli, February 17, Rome, Italy
16. 2020 'Personalized Electroceuticals against multiple sclerosis fatigue', Virtual Retreat Inst. of Neuroscience Cnr, November 11, Online
17. 2020 Collaborazione IGEA-Cnr per Dispositivo e Servizio Faremus [Fatigue Relief in Multiple Sclerosis, October 29, Rome, Italy
18. 2020 'How simple is the brain complexity', Gallogly College of Engineering, University of Oklahoma, September 25 Online, USA
19. 2019 'Personalised electroceuticals in e-community', Big Data in Health network workshop, October 4, Rome, Italy
20. 2019 'The simple complexity of the language the 'Body and Brain' system uses communicating with the environment', International Summer Institute on Network Physiology (ISINP), July 30, Como, Italy

21. 2019 'Listening to the fractal Body & Brain language to personalize electroceuticals by transcranial electric stimulation', June 13, Bionetwork, Rome, Italy
22. 2019 National Final Congress, Cnr PNR "Invecchiamento", June 11, Rome, Italy
23. 2019 'Fatigue Relief in Multiple Sclerosis by a Customized Neuromodulation treatment at Home [FaReMuS CuNe-H]', May 29, National Congress FISM, Rome, Italy
24. 2019 'Neuromodulazione personalizzata contro la fatica nella sclerosi multipla', May 3, Months workshops, Humanitas, Milan, Italy
25. 2019 'Interpreting the BodyBrain language to personalize electroceuticals therapies', March 20, [https:// neuro.embs.org/2019/workshops/](https://neuro.embs.org/2019/workshops/) 9th International IEEE EMBS Conference on Neural Engineering, NER'19 San Francisco, USA
26. 2018 'Enhancing the SEP intraoperative monitoring for aneurysm clipping in the anterior circulation', EOC Neurocenter - inomed- Cnr collaboration, December 14, Lugano, Swiss
27. 2018 'Distributed Knowledge ISTC -ISTC models & the ISTC know how- in Computational Psychiatry', ISTC initiative, June 8, Rome, Italy
28. 2018 'Listening to the body&brain to personalize neuromodulations', Andreas Engel & Christian Gerloff invitation to the Collaborative Research Center 936 "Multi-Site Communication in the Brain" (SFB 936), Universitäts Klinikum Hamburg-Eppendorf, May 28, Hamburg, Germany
29. 2018 'Listening to the Body & Brain to personalize interventions', IMM-LET'S collaboration, Area Cnr Tor Vergata, May 21, Rome, Italy
30. 2018 'LET'S achievements', Faculty of Mechanical Engineering, Delft Technology University TU Delft, May 9, Delft, The Netherlands
31. 2018 'Semplice, la complessità nell'essere umano!', Le reti della Vita, Associazione aNETomy in collaboration with the 'Master di Medicine Naturali dell'Università di Roma Tor Vergata', Medicine Faculty Tor Vergata University, April 14, Rome, Italy
32. 2017 Neuroelectrics & Starlab Neuroscience director Aureli Soria-Frisch, ScientiPc discussion for collaborations, November 29, Barcelona, Spain
33. 2017 'Does the Morphology of the Somatosensory Evoked Potentials (SEP) Enhance the Prevention of Cortical Ischemia during Clipping of Middle Cerebral Artery Aneurysms? A Preliminary Study', 6th International Society of Intraoperative Neurophysiology (ISIN) Congress, November 3, Seoul, South Korea
34. 2017 'Personalizing tES', Basic and Clinical multimodal Imaging BaCI Conference, September 1, Bern, Swiss
35. 2017 'MagnetoencefalograPa (MEG)', SIN Appulo Lucana, May 16, Lecce, Italy
36. 2017 'The Morphology of Somatosensory evoked potentials in monitoring brain ischemia during cerebral Aneurysm Clipping [MoSAC]', March 3, ISTC Rome, Italy
37. 2017 'La stimolazione elettrica transcranica: un approccio non invasivo personalizzato per stimolare la plasticità neuronale', Teaching course La plasticità neuronale come strumento per la riabilitazione @ Humanitas, February 16-17, Milano, Italy
38. 2017 'Fatica e Sclerosi Multipla', Teaching course Applicazioni della stimolazione elettrica transcranica (tES) in riabilitazione neurologica @ University of Siena, February 10, Siena, Italy
39. 2017 'LET'S Unit', MEG!IT meeting, January 20-21, Napoli, Italy
40. 2016 'Brain neuronal activity to personalize neuromodulation therapeutic interventions', BrainModes congress, 2 December, Brussels, Belgium

41. 2016 'Structural-functional unit in the brain: sings of cerebral ischemia from the morphology of the responses to somatosensory stimuli', Symposium at Ospedale Regionale di Lugano, Civico, November 18, Lugano, Swiss
42. 2016 'MEG e applicazioni cliniche nello studio della plasticità cerebrale', congresso Nazionale SINC, 27 May, Latina, Italy
43. 2016 'Electrophysiological neuroimaging to personalize the therapeutic intervention in enhancing stroke recovery', Humanitas seminars, April 19, Milan, Italy
44. 2016 'MagnetoencefalograPa per personalizzare l'intervento terapeutico', 6° Corso di Riabilitazione e NeuroPsiologia Clinica, March 1, AbanoTerme, Italy
45. 2015 'Neurophysiological imaging to personalize neuromodulation interventions', Collaboration symposium at Motor Control Laboratory, Research Centre for Motor Control and Neuroplasticity at K.U. Leuven, 26 October, Leuven, Belgium
46. 2015 'MEG assessment of brain plasticity in stroke recovery', European MEG Society, 23 October, Brussels, Belgium
47. 2015 'Fatigue Relief in Multiple Sclerosis by bilateral somatosensory cortex neuromodulation [FaReMuS]', 30 September, Brno, Czech Republic
48. 2015 'Neurophysiological imaging to personalize tES', TmsEeg Summer School, 8 September, Pajulahti, Finland
49. 2015 'EEG/MEG/EMG/TMS+EEG to personalize neuromodulation interventions', Basic and Clinical Multimodal Imaging, BaCI 2015, 2 September, Utrecht, The Netherlands
50. 2015 'Fatigue Relief in Multiple Sclerosis by bilateral somatosensory cortex neuromodulation [FaReMuS]', International Congress of the Organization For Human Brain Mapping, OHBM, 18 June, Honolulu, Hawaii, USA
51. 2015 'Personalizing the electrode to neuromodulate an extended cortical region', Hawaii BrainSTIM Meeting 2015, 13 June, Honolulu, Hawaii, USA
52. 2015 'LET'S Laboratory of Electrophysiology for Translational neuroScience', Incontro congiunto SINC – SIAMOC, 20 maggio Verona
53. 2015 'Fatigue Relief in Multiple Sclerosis', 1st International Brain Stimulation Conference, 27 February, Singapore
54. 2014 'Neuronal activity in translational perspectives', Workshop Bringing Maths to Life, Naples
55. 2014 'Fatigue relief in multiple sclerosis by neuromodulation: a tDCS intervention', FISM Annual National Congress, Rome
56. 2014 'Fatigue in Multiple Sclerosis: mechanisms and therapeutic approaches', Top Seminars In Multiple Sclerosis, Sorrento
57. 2014 'Non-invasive electrophysiology of the sensory-motor system: novel translational perspectives.', 13 feb, IRCCS Humanitas, Milan
58. 2013 Neuroscienze e Società, ISTC, Rome
59. 2013 'Let's tune in. Neuroscience shows that the brain, as the society, dynamically adapts to the environment by synchronizing rhythmic activities.' Italian Institute of Culture – Italian Ministry of Foreign Affairs, Nairobi, Kenya
60. 2012 'Elettrodi personalizzati per differenziare il target di una stimolazione transcranica in corrente', XII AFaR Italian Congress, Brescia, Italy

61. 2011 'Intra-cortical connectivity in physiological state and its distortions in neurological diseases: is it possible to compensate by neuromodulations interventions?', European Winter Conference On Brain Research (EWCBR), Les 2 Alpes, France
62. 2011 'Translational perspectives for neuro-imaging and neuromodulation techniques', Annual Seminars ISTC, CNR, Rome, Italy
63. 2010 'tDCS e neuroplasticità nella memoria procedurale', Workshop TES, 12 novembre Brescia, Italy
64. 2010 'Local cortical and cortico-spinal neural synchrony for sensorimotor control', International Congress on Clinical Neurophysiology (ICCN2010), Kobe, Japan
65. 2010 'Area sensori-motoria primaria quale indicatore sensibile in patologie neurologiche e psichiatriche', X AFaR Italian Congress, Brescia, Italy
66. 2009 'Magnetoencefalografia', National Congress of the Italian Society of Psychophysiology, Siena, Italy
67. 2009 'Cortical Connectivity Measured through Magnetoencephalography', National Congress of the Italian Society of Clinical Neurophysiology, Salerno, Italy
68. 2009 Seminar speaker of the month: 'Cortical neuronal pools in primary sensory and motor regions and their functional relationship investigated non-invasively in man', Institute of Neuroscience, Faculty of Medical Sciences of the Newcastle University, Newcastle Upon Tyne, UK
69. 2008 'Auditory sensory processing in autism: a magnetoencephalographic study', IV International congress 'AUTISM TODAY: communication, languages and codes for a global approach', Roma, Italy
70. 2008 'Plasticity in the somatosensory system', National Congress of the Italian Society of Psychophysiology, Pisa, Italy
71. 2008 'Dynamic gamma-band synchrony: a neural code of sensorimotor dexterity', BIOMAG2008, Sapporo, Japan
72. 2008 'Neurofisiologia e Neuroimaging', National Congress of the Italian Society of Clinical Neurophysiology, Venice, Italy
73. 2008 'Electrophysiological contribution to functional brain mapping.', 13° European Congress of Clinical Neurophysiology, Istanbul, Turkey
74. 2007 'Neuronal excitability and prognostic indexes in acute stroke', IV Symposium on Neuroimaging in Stroke, Philadelphia, USA
75. 2007 'Magnetoencefalografia', VI annual course on 'Electroencephalography and correlated techniques', Italian Society for Clinical Neurophysiology, March 31, Tirrenia-Pisa (Italy)
76. 2007 'Electrophysiological prognostic indicators in acute stroke' and 'Magnetoencephalography', invited collaboration at the Department of Neurological and Vision Sciences, University of Verona, February 13-14, Verona (Italy)
77. 2006 'Sensorimotor interaction and feedback assessment by MEG', IRCCS Stella Maris, September 1, Pisa (Italy)
78. 2006 "Inhibition/excitation in acute stroke as indexes for acute neuro-modulation to promote recovery", III° Symposium on Neuroimaging of stroke and functional recovery, June 16-18, Montalcino (Italia)

European Project speaker (total times 14)

2012 Parma, Italy; 'WP8 Validation and pre-clinical tests', 48th month MEGMRI consortium meeting.

- 2011 Grenoble, France; 'WP8 Validation and pre-clinical tests', 42th month MEGMRI consortium meeting.
- 2011 Chieti, Italy; 'WP8 Validation and pre-clinical tests', 36th month MEGMRI consortium meeting.
- 2010 Berlin, Germany; 'WP8 Validation and pre-clinical tests', 30th month MEGMRI consortium meeting.
- 2010 Helsinki, Finland; 'WP8 Validation and pre-clinical tests', 24th month MEGMRI consortium meeting.
- 2009 Rome, Italy; 'Brainstorming meeting, 18th month MEGMRI consortium meeting.
- 2009 Goteborg, Sweden; 'Unit role', 12th month MEGMRI consortium meeting.
- 2008 Paris, France; 'Unit role', 6th month MEGMRI consortium meeting.
- 2008 Krapihovi, Helsinki, Finland; 'User Requirements' and 'Unity role' kick-offmeeting, MEGMRI, Hybrid MEG-MRI Imaging System, COLLABORATIVE PROJECT FP7-HEALTH-2007-A.
- 2006 ESTEC - Noordwijk, The Nederland; 'Unit role', kick-offmeeting ESA-ARIADNA.
- 2005 Warsaw, Poland; 'Clinical application', Review meeting 'NEUROBOTICS' EU IP.
- 2005 Bruxelles, Belgium; 'Unit Activity Report' , Review preparatory meeting 'NEUROBOTICS' EU IP.
- 2004 Paris, France; 'Plasticity of neural circuits', meeting 'NEUROBOTICS' EU IP.
- 2004 Pontedera, Italy; 'Unit role', kick-offmeeting 'NEUROBOTICS' EU IP.

● DIDACTIC ACTIVITY AND RESPONSIBILITIES

International and National Internship (total 7 Master Students)

1. 2021 Joy Grifoni, Psychology Faculty, International Telematic University Uninettuno, "", 01/04/2022 to 30/09/2022
2. 2019 Teresa L'Abbate, Psychology Faculty, University of Chieti, 'Neuromodulazione contro la fatica nella sclerosi multipla', 01/11/2019 to 30/04/2020
3. 2018 Sayyed Morteza Nourian, Communications Engineering, Department of Electrical and Computer Engineering, State University of Yazd-Iran, 'EEG-based brain activity analysis to enhance the functional- structural personalization of neuromodulation interventions', 20/09/2018 to 19/03/2019
4. 2018 Elzbieta Olejarczyk, Nałęcz Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences PAN, 'Complex systems' measures of brain state', July
5. 2018 Giada Persichilli, Medicine and Psychology Faculty - La Sapienza University, 'Eye Movement Desensitization and Reprocessing EMDR and Hypnosis: a comparative analysis', March-October
6. 2016 Annemijn Emilie Smid, Delft University of Technology, faculty Applied Sciences, Master of Science, Education and Communication, 'Functional connectivity within brain networks', Erasmus Grant, September-December
7. 2015 Fenne Smits, Master's programme Brain and Cognitive sciences at the University of Amsterdam, 'Personalization of rehabilitation interventions in people suffering from neurological diseases', Erasmus Grant, February-September

PhD course or Neurology Residency Director of studies (total 13 PhD or Residency students)

1. 2021-present Dottorato di Ricerca in Mente e Tecnologie nella Società Digitale. International Telematic University Uninettuno: 'Interazione sensorimotoria multimodale per il benessere psicoPsico', Joy Grifoni – Psychologist.

2. 2021-present Dottorato di Ricerca in Mente e Tecnologie nella Società Digitale. International Telematic University Uninettuno: 'Modello elettroceutico in e-community per il benessere psicofisico', Teresa L'Abbate – Psychologist.
3. 2019-2022 Dottorato di Ricerca in Mente e Tecnologie nella Società Digitale. International Telematic University Uninettuno: 'Neuronal electrical ongoing activity as cortical areas' signature', Karolina Armonaite – Health Management
4. 2019-2022 Dottorato di Ricerca in Neuroimaging funzionale: strumenti, metodi e modelli per lo studio delle relazioni mente-cervello-comportamento. Dept. Of Clinical Sciences and Bioimages – University of Chieti- Pescara: 'Rete Fatica nella sclerosi multipla derivata da elettroencefalogramma-EEG con functional source separation-FSS' [FamusNet], Massimo Bertoli – Psychologist.
5. 2019-2022 University Campus Bio-Medico of Rome, Rome: 'Trattamento di Elettroceutica di Precisione: curare la fatica nella sclerosi multipla con neuromodulazione personalizzata domiciliare' [LetsFaremusH], Eugenia Gianni – Phylosopher.
6. 2013-2016 Dottorato di Ricerca in Neuroscienze. Policlinico Gemelli – University of Sacro Cuore di Gesu' Roma: 'Brain's structural-functional integration: Neuronavigation to personalize neuromodulation interventions' [NeFAn], Andrea Cancelli – Electronic Engineer.
7. 2012-2015 Dottorato di Ricerca in Neuroimaging funzionale: strumenti, metodi e modelli per lo studio delle relazioni mente-cervello-comportamento. Dept. Of Clinical Sciences and Bioimages – University of Chieti- Pescara: 'Functionally homologous hemispheric areas': balance and specificities [FHArBS], Carlo Cottone – Electronic Engineer.
8. 2009-2013 University of Plymouth, Science and Technology Faculty, School of Computing and Mathematics. Rome Node 'Non invasive investigation of sensorimotor control for future development of Brain-Machine- Interface (BMI)', Leo Tomasevic – Electronic Engineer.
9. 2006-2010 University Campus Bio-Medico of Rome, Rome: 'Valore prognostico dell'attività neuronale controlesionale nell'ischemia cerebrale acuta', Giovanni Assenza – Medical Doctor Neurologist.
10. 2004-2007 Dept. Of Clinical Sciences and Bioimages – University of Chieti-Pescara: 'Development of Tools to Estimate Functional Connectivity among Cerebral Sensorimotor Sources', Camillo Porcaro – Computer Scientist.
11. 2003-2006 Dept. Of Clinical Sciences and Bioimages – University of Chieti-Pescara, 'Algorithms of Separation of the Source of Magnetoencephalographic Readings and Results', Giulia Barbati – Statistician.
12. 2002-2005 Dept. Of Clinical Sciences and Bioimages – University of Chieti-Pescara, 'Time-frequency analysis of MEG signals to set indices sensitive to homeostatic alterations of the rolandic neuronal activity at rest and following sensory stimulation' – Filippo Zappasodi – Electronic Engineer.
13. 2002 Physics faculty – University of Bari, 'Pattern extraction through artificial neural networks, Francesco De Carlo – Physicist.

University degree Tutor (total 24 Master theses)

1. 2022 Psychology, International Telematic University Uninettuno: Mente e cibo: il funzionamento della rete neuronale insegna come alimentarsi – Alessandra Sabatino
2. 2022 Biomedical Engineering, University of Rome Sapienza: Omologia dei due sistemi cortico-spinali di controllo del movimento - Maria Rita Pagliarini
3. 2022 Psychology, International Telematic University Uninettuno: Neuropsiologia dei disturbi del sonno e interventi terapeutici: un focus sull'insonnia - Martina Veracini
4. 2022 Psychology, International Telematic University Uninettuno: Disturbi del sonno nel quadro pandemico,

il valore aggiunto del Web - Giulia Litrico

5. 2021 Psychology, International Telematic University Uninettuno: Efficacia della Stimolazione Sonora e Musicale nella Terapia EMDR - Joy Grifoni
6. 2021 Psychology, International Telematic University Uninettuno: FSS per la comunità neuroscientiPca EEG.MEG - Gianluca Loli
7. 2021 Psychology, International Telematic University Uninettuno: L'attività neurale come l'interazione sociale - Giuseppe Vigna
8. 2020-21 Biomedical Engineering, University of Rome Sapienza: A computerized algorithm to shape a personalized electrode for transcranial electric stimulation [ComputRePE] - Francesca Patarini
9. 2019-20 Biomedical Engineering, University of Rome Sapienza: A personalized neuromodulation against multiple sclerosis fatigue asymmetrically modiPes the recruitment pattern of the corticospinal tracts - Angela Tataranni
10. 2019-20 Biomedical Engineering, University of Rome Sapienza: Corticospinal tracts' homology changes for a personalized neuromodulation Pghting multiple sclerosis fatigue – Susanna Porziani
11. 2018 Biomedical Engineering, University of Rome Sapienza: Motor strategy effects of personalized neurostimulation to relieve fatigue in multiple sclerosis – Carla Scardino
12. 2015 Biomedical Engineering, University of Rome Sapienza: Sviluppo di procedure di neuromodulazione personalizzate contro la fatica nella sclerosi multipla – Giampiero Asta
13. 2012 Neurobiology, University of Rome Sapienza: ProPlo neuro-radiologico, biochimico ed elettroPsiologico di fatica nella sclerosi multipla – Irene Cogliati Dezza
14. 2010 Electronic Engineering, University of Rome Sapienza: Applicazioni di tecniche Blind Source Separation (BSS) al segnale magnetoencefalograPco (MEG) : studio dell'attività di
15. sorgente nell'area somatosensoriale primaria della mano nell'invecchiamento – Carlo Cottone
16. 2008 Bio Engineer, University of Rome Campus Bio-Medico: Sensory-motor circuit changes after robotic rehabilitation in stroke patients: neurophysiological characterization – Viola Giacobbe.
17. 2008 Bio Engineer, University of Rome Campus Bio-Medico: Source extraction in sensory areas devoted to the hand representation and estimate of an index of intra-cortical connectivity in dependence on age – Pasquale Ciuffreda.
18. 2005 Electronic Engineering, University of Rome La Sapienza: Semi-blind Functional Separation Algorithms for magnetoencephalographic signals – Roberto Sigismondi.
19. 2004 Physics, University of Rome La Sapienza: Dynamic synchrony in the hand sensory areas: a new cortical code of functional prevalence? – Sara Graziadio.
20. 2003 Electronic Engineering, University of L'Aquila: Multilevel analysis of MEG signals through wavelet packet transformers (wpt) – Carmine Ritota.
21. 2002 Physics, University of Bari: Evoked synchrony in the somatosensory system assessed through MEG – Gianfranco Gargano.
22. 2001 Information Sciences, University of Rome La Sapienza: 'Cortico-muscular MEG-electromyographic coherence for primary motor area characterization' – Camillo Porcaro.
23. 2000 Electronic Engineering, University of Rome La Sapienza: MEG signals in stroke patients with unilateral lesion – Isabella Silvi.
24. 1999 Electronic Engineering, University of Rome La Sapienza: Fetal MEG: acquisition and interesting signal extraction – Filippo Zappasodi.

University lectures

- 2009 La Sapienza University, Dept. Methods and Mathematic Models for Applied Sciences: Identification of neural groups through non-invasive registration (EEG-MEG). (Me.Mo.Mat. Mathematics PhD course)
- 2008 'Magnetoencefalografia', Corso di laurea per Neurophysiopathology Technician, April 12, Montesilvano-Pescara (Italy)
- 2005 S. Giovanni Calibita - Fatebenefratelli Hospital, Rome: MEG: physics, technological principles and clinical applications. (Refresher Course in Physics)
- 2001 University of Bari: Magnetoencephalography (Physics PhD course)
- 1998-2000 University of Udine: Magnetoencephalography (Degree in Neurophysiological Sciences)

DISSEMINATION

Youtube

October 8th 2016

[TEDxCNR](#)

'Per curare il cervello parliamogli in frattale', Auditorium Parco della Musica, Rome, Italy
488.000 visualizations

Press Releases

December 19th 2019

press release CNR

[Un caschetto contro l'affaticamento da sclerosi multipla](#)

January 18th 2018

press release CNR

[Nuova tecnica per curare i disturbi neurologici](#)

January 19th 2014

press release CNR

[Sclerosi multipla: un rimedio contro la stanchezza](#)

Radio Broadcasting

RAI RADIOTRE pag. 11:34 · 29-12-2022

RADIO3 SCIENZA H 11.30 (Ora: 11:34:54 Min: 17:47)

[Play ▶] [Apri PDF]

Presentazione del libro "*Vedere la mente. Il cervello in 100 immagini*" di Stanislas Dehaene pubblicato da Raffaello Cortina. Intervista a: **Franca Tecchio**, dirigente di ricerca all'Istituto di scienze e tecnologie della cognizione del CNR.

November 1st 2017

RAI RADIO 3 SCIENZA Ora: 11:49:10 Min: 10:18)

<http://www.raiplayradio.it/audio/2017/10/Titolo-ba5b889c-4618-4ad1-830f-696d979f67d6.html>

Collegamento a Seul con **Franca Tecchio**, ricercatrice dell'Istituto di Scienze e Tecnologie della Cognizione del CNR di Roma, con la quale si parla delle tecniche di brain imaging a partire dalla

notizia che *l'Allen Institute for Brain Science* di Seattle ha annunciato la costituzione di un archivio di dati relativi a cellule cerebrali umane viventi.

January 6th 2017

RADIO 3 SCIENZA (Ora: 11:49:10 Min: 3:45)

<http://www.tg2.rai.it/dl/portaleRadio/media/ContentItem-bc4fcf7e-5fa5-4095-b8da-5b7af08575ff.html>

Disegniamo *mappe* da sempre. Ci servono per orientarci, per tentare di avere una visione d'insieme, per individuare meglio le parti. Un tentativo di comprensione del mondo che è stato spesso applicato anche alla scienza. Genetica, matematica, cosmologia e neuroscienze sono solo quattro campi di studio dove a lungo si è cercato di definire e utilizzare delle mappe come strumento di ricerca. Un viaggio nella comprensione e nella conoscenza che intraprendiamo con **Franca Tecchio**, dell'Istituto di scienze e tecnologie della cognizione, Giuseppe Rosolini, docente di logica matematica dell'università di Genova, Antonio Amoroso, docente di genetica medica all'università di Torino, Marco Bersanelli, astrofisico dell'università di Milano.

SCIENTIFIC COLLABORATIONS

- Alvaro Pascual-Leone, Director of the Guttmann Barcelona Brain Health and Neurorehabilitation Institute, Barcellona, Spain
- Annapurna Kuppaswamy, University College London, London, UK
- Matilde Inglese, Mount Sinai School of Medicine (MSSM), New York, USA
- Fernanda Irrera, DIET, Sapienza University, Rome, Italy
- Livio Conti, International Telematic University Uninettuno, Rome, Italy
- Marom Bikson, Department of Biomedical Engineering, The City College of New York of CUNY, New York, USA
- Elzbieta Olejarczyk, Nalecz Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, Warsaw, Poland
- Franco Marinozzi, Ing. Biomedica, Sapienza University, Rome, Italy
- Antonio Oliviero, Unidad de Neurología Funcional, Hospital Nacional de Paraplégicos, SESCAM, Toledo, Spain
- Eileen Luders, Lab. Neuroimaging, Depart. Neurology, University of California Los Angeles (UCLA), School of Medicine, Los Angeles, California 90095-7334, USA
- Vittoria Bruni, Annalisa Pascarella, Domenico Vitulano, IAC CNR, Rome
- Francesca Bagnato, Institute of Imaging Science, Radiology Department, Vanderbilt University, Nashville, USA
- Marco Balsi, Ingegneria Elettronica, Sapienza University, Rome, Italy
- Angelo Cangelosi, Artificial Intelligence and Cognition, Adaptive Behaviour and Cognition Lab, University of Plymouth, United Kingdom
- Janet A Eyre, Developmental Neuroscience, The Institute of Neuroscience, Newcastle University, Newcastle upon Tyne, United Kingdom
- S. Seri, The Wellcome Trust Laboratory for MEG Studies, School of Life and Health Sciences, Aston University, Birmingham, UK
- Simone Pittaccio, CNR-IENI, Unità di Lecco, Italy
- Franco Molteni, Ospedale Valduce, Clinica Villa Beretta, Costamasnaga, Italy.
- Tommaso Pizzorusso, Univ. Firenze e Istituto di Neuroscienze, Pisa, Italy.
- IRCCS SAN RAFFAELE PISANA, Roma; "S.Giovanni di Dio", Brescia; "S.Lucia", Roma
- Roberto Bellotti, Centro di eccellenza "Tecnologie Innovative per la Rivelazione e l'Elaborazione del Segnale" - TIRES, Università degli studi di Bari
- Carl H. Lucking, Gunter Deuschl, Neurologische Universitätsklinik, Klinikum der Albert-Ludwigs Universität, Freiburg (Germany)
- Romyana Kristeva, Inst. Biomedical Engineering, University of Ulm (Germany)
- Leif Hultin, Dept. Applied Electronics, Göthenburg (Sweden)
- Simone Rossi, Istituto di Clinica delle Malattie Nervose e Mentali, Università di Siena
- Livio Narici, Dip. di Fisica, e A. Sabato, Istituto di Anestesiologia, Università di Roma "Tor Vergata"
- Stefano Seri, Neuropsichiatria Infantile, Università di Roma "La Sapienza"
- Claudio Babiloni, Ist. Fisiologia Umana, Università di Roma "La Sapienza"
- Gian Luca Romani, V. Pizzella, Ist. Tecnologie Avanzate Biomedicali ITAB, ed Istituto di Fisica Medica, Università di Chieti "G. D'Annunzio"

- CISB, Centro Interdip. Sistemi Biomedici, Dipartimento INFOCOM, Facoltà di Ingegneria, Università di Roma "La Sapienza"
- Michael H. Thaut, Center of Biomedical Research in Neurologic Rehabilitation, Colorado State University (USA)

1. Pascarella A, Gianni E, Abbondanza M, Armonaite K, Pitolli F, Bertoli M, L'Abbate T, Grifoni J, Vitulano D, Bruni V, Conti L, Paulon L, Tecchio F. Normalized compression distance to measure cortico-muscular synchronization. *Front Neurosci.* 2022; 16:933391. doi: 10.3389/fnins.2022.933391.
2. Croce P, Tecchio F, Gabriella T, Patrique F, Comani S, Zappasodi F. Brain electrical microstate features as biomarkers of a stable motor output. *J Neural Eng.* 2022 Oct 25;19(5). doi: 10.1088/1741-2552/ac975b. PMID: 36195069.
3. Armonaite K, Bertoli M, Paulon L, Gianni E, Balsi M, Conti L, Tecchio F. Neuronal Electrical Ongoing Activity as Cortical Areas Signature: An Insight from MNI Intracerebral Recording Atlas. *Cereb Cortex.* 2022; 32(13):2895-2906. doi: 10.1093/cercor/bhab389
4. L'Abbate T, Armonaite K, Gianni E, Bertoli M, Conti L, Grifoni J, Cancelli A, Cottone C, Trombetta E, Padalino M, Porcaro C, Tecchio F. Corticomuscular Coherence Dependence on Body Side and Visual Feedback. *Neuroscience.* 2022; 490:144-154. doi: 10.1016/j.neuroscience.2022.02.019.
5. Tecchio F, Cancelli A, Pizzichino A, L'Abbate T, Gianni E, Bertoli M, Paulon L, Zannino S, Giordani A, Lupoi D, Pasqualetti P, Mirabella M, Filippi MM. Home treatment against fatigue in multiple sclerosis by a personalized, bilateral whole-body somatosensory cortex stimulation. *Mult Scler Relat Disord.* 2022; 63:103813. doi: 10.1016/j.msard.2022.103813.
6. Persichilli G, Grifoni J, Pagani M, Bertoli M, Gianni E, L'Abbate T, Cerniglia L, Bevacqua G, Paulon L, Tecchio F. Sensorimotor Interaction Against Trauma. *Front Neurosci.* 2022 Jun 14;16:913410. doi: 10.3389/fnins.2022.913410.
7. Armonaite K, Nobili L, Paulon L, Balsi M, Conti L, Tecchio F. Local neurodynamics as a signature of cortical areas: new insights from sleep. *Cereb Cortex.* 2022; bhac274. doi: 10.1093/cercor/bhac274. Epub ahead of print.
8. Olejarczyk E, Zappasodi F, Ricci L, Pascarella A, Pellegrino G, Paulon L, Assenza G, Tecchio F. Functional Source Separation-Identified Epileptic Network: Analysis Pipeline. *Brain Sci.* 2022; 12(9):1179. doi: 10.3390/brainsci12091179.
9. Gianni E, Bertoli M, Simonelli I, Paulon L, Tecchio F, Pasqualetti P. tDCS randomized controlled trials in non-structural diseases: a quantitative review. *Sci Rep.* 2021 Aug 11;11(1):16311. doi: 10.1038/s41598-021-95084-6. PMID: 34381076; PMCID: PMC8357949.
10. Padalino, M., Scardino, C., Zito, G., Cancelli, A., Cottone, C., Bertoli, M., Gianni, E., L'Abbate, T., Trombetta, E., Porcaro, C., Bini, F., Marinozzi, F., Filippi, M. M., & **Tecchio, F.** (2021). Effects on Motor Control of Personalized Neuromodulation Against Multiple Sclerosis Fatigue. *Brain topography*, 34(3), 363–372.
11. **Tecchio, F.**, Bertoli, M., Gianni, E., L'Abbate, T., Paulon, L., & Zappasodi, F. (2020) To Be Is To Become. Fractal Neurodynamics of the Body-Brain Control System. *Front. Physiol.*, 11.**Tecchio, F.**, Bertoli, M., Gianni, E., L'Abbate, T., Sbragia, E., Stara, S., & Inglese, M. (2020). Parietal dysfunctional connectivity in depression in multiple sclerosis. *Multiple sclerosis (Houndmills, Basingstoke, England)*, 1352458520964412. Advance online publication. <https://doi.org/10.1177/1352458520964412>
12. Chiarelli, A.M., Croce, P., Assenza, G., Merla, A., Granata, G., Giannantoni, N.M., Pizzella, V., **Tecchio, F.**, & Zappasodi, F. (2020) Electroencephalography-Derived Prognosis of Functional Recovery in Acute Stroke through Machine Learning Approaches. *Int. J. Neural Syst.*
13. Guarnieri, R., Brancucci, A., D'Anselmo, A., Manippa, V., Swinnen, S.P., **Tecchio, F.**, & Mantini, D. (2020) A computationally efficient method for the attenuation of alternating current stimulation artifacts in electroencephalographic recordings. *J. Neural Eng.*, 17, 46038.
14. Rossini, P. M., Di Iorio, R., Vecchio, F., Anfossi, M., Babiloni, C., Bozzali, M., Bruni, A. C., Cappa, S. F., Escudero, J., Fraga, F. J., Giannakopoulos, P., Guntekin, B., Logroscino, G., Marra, C., Miraglia, F., Panza, F., **Tecchio, F.**, Pascual-Leone, A., & Dubois, B. (2020). Early diagnosis of Alzheimer's disease: the role of biomarkers including advanced EEG signal analysis. Report from the IFCN-sponsored panel of experts. *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology*, 131(6), 1287–1310.

15. Bertoli M, **Tecchio F**. Fatigue in multiple sclerosis: Does the functional or structural damage prevail? *Mult Scler*. 2020; 1352458520912175. doi:10.1177/1352458520912175 (IF: 5.649)
16. Rossini PM, Di Iorio R, Vecchio F, et al. Early diagnosis of Alzheimer's disease: the role of biomarkers including advanced EEG signal analysis. Report from the IFCN-sponsored panel of experts. *Clin Neurophysiol*. 2020;131(6):1287-1310. doi:10.1016/j.clinph.2020.03.003 (IF: 3.614)
17. Malosio ML, **Tecchio F**, Squitti R. Molecular mechanisms underlying copper function and toxicity in neurons and their possible therapeutic exploitation for Alzheimer's disease. *Aging Clin Exp Res*. 2020; doi: 10.1007/s40520-019-01463-5 (IF: 2.331)
18. **Tecchio F**, Cecconi F, Colamartino E, Padalino M, Valci L, Reinert M. The Morphology of Somatosensory Evoked Potentials During Middle Cerebral Artery Aneurysm Clipping (MoSAC): A Pilot Study. *Clin EEG Neurosci*. 2020;51(2):130-136. doi:10.1177/1550059419874942 (IF: 1.822)
19. Porcaro C, Cottone C, Cancelli A, Rossini PM, Zito G, **Tecchio F**. Cortical neurodynamics changes mediate the efficacy of a personalized neuromodulation against multiple sclerosis fatigue. *Sci Rep* 2019; 9:18213. doi: 10.1038/s41598-019-54595-z (IF: 4.011)
20. **Tecchio F**, Malosio ML, Zappasodi F, Assenza G, Squitti R. Multi-modal factors for recovery prognosis in acute stroke. *Aging Clin Exp Res* 2019; doi:10.1007/s40520-019-01346-9 [PointOfView] (IF: 2.331)
21. Zappasodi F, Pasqualetti P, Rossini PM, **Tecchio F**. Acute phase neuronal activity for the prognosis of stroke recovery. *Neural Plasticity* 2019; 2019:1971875. doi: 10.1155/2019/1971875 (IF: 3.591)
22. Zappasodi F, Tecchio F, Marzetti L, Pizzella V, Di Lazzaro V, Assenza G. Longitudinal quantitative electroencephalographic study in mono-hemispheric stroke patients. *Neural Regen Res*. 2019; 14(7): 1237-1246. doi: 10.4103/1673-5374.251331 (IF: 2.472)
23. 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. *Hum Brain Mapp*. 2019; 40(5): 1445-1457. doi: 10.1002/hbm.24458 (IF: 4.927)
24. Cottone C, Cancelli A, Pasqualetti P, Porcaro C, Salustri C, **Tecchio F**. A new, high-efficacy, non-invasive transcranial electric stimulation tuned to local neurodynamics. *J Neurosci*. 2018; 38(3):586-594 pii: 2521-16 doi: 10.1523/JNEUROSCI.2521-16.2017 <http://www.jneurosci.org/content/38/3/586/tab-article-info> (IF: 5.988)
<http://newsletter.fatebenefratelli-isolatiberina.it/It/HomePage.aspx?IdG=7c5c0b8e-a05f-4194-9a82-039e52a6c908>
25. Cancelli A, Cottone C, Giordani A, Asta G, Lupoi D, Pizzella V, **Tecchio F**. MRI-guided regional personalized electrical stimulation in multisession and home treatments. *Front Neurosci*. 2018; 12:284. doi: 10.3389/fnins.2018.00284 (IF: 3.566)
26. **Tecchio F**, Cottone C, Porcaro C, Cancelli A, Di Lazzaro V, Assenza G. Brain Functional Connectivity Changes After Transcranial Direct Current Stimulation in Epileptic Patients. *Front Neural Circuits*. 2018; 12:44 doi: 10.3389/fncir.2018.00044. (IF: 2.117)
27. Squitti R, Siotto M, Assenza G, Giannantoni NM, Rongioletti M, Zappasodi F, **Tecchio F**. Prognostic Value of Serum Copper for Post-Stroke Clinical Recovery: A Pilot Study. *Front Neurol*. 2018; 9:333 doi: 10.3389/fneur.2018.00333. (IF: 3.552)
28. Porcaro C, Cottone C, Cancelli A, Salustri C, Tecchio F. Functional Semi-Blind Source Separation Identifies Primary Motor Area without Active Motor Execution. *International Journal of Neural Systems IJNS*. 2018; 28(3):1750047 doi: 10.1142/S0129065717500472. (IF: 6.333)
29. Cancelli A, Cottone C, Giordani A, Migliore S, Lupoi D, Porcaro C, Mirabella M, Rossini PM, Filippi MM, **Tecchio F**. Personalized bilateral whole body somatosensory cortex stimulation to relieve fatigue in multiple sclerosis. *Mult Scler* . 2018; 24(10):1366-1374 doi: 10.1177/1352458517720528 (IF: 4.840)
30. 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. *Hum Brain Mapp*. 2018; doi:10.1002/hbm.24458. (IF: 4.927)

31. Zappasodi F, Croce P, Giordani A, Assenza G, Giannantoni NM, ProPce P, Granata G, Rossini PM, **Tecchio F**. Prognostic Value of EEG Microstates in Acute Stroke. *Brain Topogr* 2017; 30: 698–710 (IF: 3.394)
32. Buyukturkoglu K, Porcaro C, Cottone C, Cancelli A, Inglese M, **Tecchio F**. Simple index of functional connectivity at rest in Multiple Sclerosis fatigue. *Clin Neurophysiol*, 2017; 128: 807-813 (IF: 3.866)
33. Cottone C, Porcaro C, Cancelli A, Olejarczyk E, Salustri C, **Tecchio F**. Neuronal electrical ongoing activity as a signature of cortical areas. *Brain Struct Funct* 2017; 222: 2115–2126 (IF: 4.698)
34. Mayhew SD, Porcaro C, **Tecchio F**, Bagshaw AP. fMRI characterisation of widespread brain networks relevant for behavioural variability in Pne hand motor control with and without visual feedback. *Neuroimage* 2017; 148:330-342 (IF: 5.835)
35. Porcaro C, Di Lorenzo G, Seri S, Pierelli F, **Tecchio F**, Coppola G. Impaired brainstem and thalamic high-frequency oscillatory EEG activity in migraine between attacks. *Cephalgia*. 2017 Sep;37(10):915-926 (IF: 3.609)
36. Vecchio F, Miraglia F, Porcaro C, Cottone C, Cancelli A, Rossini PM, **Tecchio F**. Electroencephalographic (EEG)-derived sensory and motor network topology in multiple sclerosis fatigue. *Neurorehabilitation & Neural Repair* 2017; 31(1):56-64. (IF: 4.107)
37. Parazzini M, Fiocchi S, Cancelli A, Cottone C, Liorni I, Ravazzani P, **Tecchio F**. A Computational Model of the Electric Field Distribution due to Regional Personalized or Nonpersonalized Electrodes to Select Transcranial Electric Stimulation Target. *IEEE Trans Biomed Eng*. 2017 Jan;64(1):184-195. doi: 10.1109/TBME. 2016.2553177. Epub 2016 Apr 12. (IF: 3.577)
38. **Tecchio F**, Vecchio F, Ventriglia M, Porcaro C, Miraglia F, Siotto M, Rossin PM, Rongioletti M, Squitti R. Non-ceruloplasmin copper appears a distinct subtype of Alzheimer’s disease: a study of EEG-derived brain activity. *Curr Alzh Res* 2016;13(12):1374-1384. (IF: 2.952)
39. Cancelli A, Cottone C, **Tecchio F**, Truong D, Dmochowski J, Bikson M. A simple method for EEG guided transcranial Electrical Stimulation without models. *J Neural Eng* 2016 in press (IF: 3.465)
40. Smits FM, Porcaro C, Cottone C, Cancelli A, Rossini PM, **Tecchio F**. Electroencephalographic fractal dimension in healthy aging and Alzheimer’s Disease. *PLoS One* 2016; 11(2):e0149587. doi: 0.1371/journal.pone. 0149587. (IF: 2.806)
41. Polimanti R, Simonelli I, Zappasodi F, Ventriglia M, Pellicciari MC, Benussi L, Squitti R, Rossini PM, **Tecchio F**. Biological factors and age-dependence of primary motor cortex experimental plasticity. *Neurol Sci*, 2016; 37(2):211-8 (IF: 1.749)
42. Cancelli A, Cottone C, Parazzini M, Fiocchi S, Truong D, Bikson M, **Tecchio F**. Transcranial Direct Current Stimulation: Personalizing the neuromodulation. *Conf Proc IEEE Eng Med Biol Soc (EMBC) 2015*;234-7.
43. Zappasodi F, Marzetti L, Olejarczyk E, **Tecchio F**, Pizzella V. Age-related changes in electroencephalographic signal complexity *PLoS One* 2015; 10(11):e0141995 (IF: 4.411)
44. Galletta EE, Cancelli A, Cottone C, Simonelli I, **Tecchio F**, Bikson M, Marangolo P. Use of computational modeling to inform tDCS electrode montages for the promotion of language recovery in post-stroke aphasia. *Brain Stim*, 2015; S1935-861X(15)01020-7 (IF: 6.078)
45. **Tecchio F**, Cancelli A, Cottone C, Ferrucci R, Vergari M, Zito G, Pasqualetti P; Filippi MM, Ghazaryan A, Lupoi D, Smits FM, Giordani A, Migliore S, Porcaro C, Salustri C, Rossini PM, Priori A. Brain plasticity effects of neuromodulation against multiple sclerosis fatigue. *Frontiers in Neurology* 2015; 6:141 (IF: 3.552)
46. Cancelli A, Cottone C, Di Giorgio M, Carducci F, **Tecchio F**. Personalizing the electrode to neuromodulate an extended cortical region. *Brain Stim*, 2015; 8:555-560 doi: 10.1016/j.brs.2015.01.398 (IF: 6.078)
47. Cancelli A, Cottone C, Zito G, Di Giorgio M, Pasqualetti P, **Tecchio F**. Cortical inhibition and excitation by bilateral transcranial alternating current stimulation. *Restor Neurol Neurosci*, 2015; 33: 105–114 doi: 10.3233/RNN-140411 (IF: 4.179)
48. 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. *J Neurol* 2015; 262:614–622 (IF: 3.841)

49. Zappasodi F, Olejarczyk E, Marzetti L, Assenza G, Pizzella V, **Tecchio F**. Fractal Dimension of EEG activity senses neuronal impairment in acute stroke. *PLoS One* 2014; 9:e100199 1-8. doi: 10.1371/journal.pone.0100199. (IF: 4.411)
50. **Tecchio F**, Cancelli A, Cottone C, Zito G, Pasqualetti P, Rossini PM, Filippi MM. Multiple sclerosis fatigue relief by bilateral somatosensory cortex neuromodulation. *J Neurol* 2014; 261:1552-1558 DOI 10.1007/s00415-014-7377-9 (IF: 3.841)
51. Porcaro C, Medaglia MT, Thai NJ, Seri S, Rotshtein P, **Tecchio F**. Contradictory reasoning network: an EEG and fMRI study. *PLoS One* 2014; 9:e92835 1-11 (IF: 4.411)
52. Zito G, Luders E, Tomasevic L, Lupoi D, Toga AW, Thompson PM, Rossini PM, Filippi MM, **Tecchio F**. Interhemispheric functional connectivity changes with corpus callosum morphology in multiple sclerosis. *Neuroscience* 2014; 266:47-55. doi: 10.1016/j.neuroscience.2014.01.039. (IF: 3.122)
53. Porcaro C, **Tecchio F**. Semi-blind Functional Source Separation Algorithm from Non-invasive Electrophysiology to Neuroimaging. Chapter 19 of: G. R. Naik and W. Wang (eds.), *Blind Source Separation: Signals and Communication Technology*, © Springer-Verlag Berlin Heidelberg 2014 DOI: 10.1007/978-3-642-55016-4_19
54. Salustri C, **Tecchio F**, Zappasodi F, Tomasevic L, Ercolani M, Moffa F, Cassetta E, Rossini PM, Squitti R. Sensory-motor cortex reorganization in Alzheimer's disease and metal dysfunction: a MEG study. *Int J Alz Dis* 2013; 638312 doi: 10.1155/2013/638312
55. Giambattistelli F, Tomasevic L, Pellegrino G, Porcaro C, Melgari JM, Rossini PM, **Tecchio F**. The spontaneous fluctuation of the excitability of a single node modulates the inter-nodes connectivity: a TMS-EEG study. *Hum Brain Mapp*, 2014; 35: 1740-1749 doi: 10.1002/hbm.22288 (IF: 5.880)
56. Pittaccio S, Zappasodi F, Tamburro G, Viscuso S, Marzetti L, Garavaglia L, **Tecchio F**, Pizzella V. Passive ankle dorsiflexion by an automated device and the reactivity of the motor cortical network. *Conf Proc IEEE Eng Med Biol Soc*. 2013; 6353-6. doi: 10.1109/EMBC.2013.6611007.
57. Melgari JM, Zappasodi F, Porcaro C, Tomasevic L, Cassetta E, Rossini PM, **Tecchio F**. Movement-induced uncoupling of primary sensory and motor areas in focal task-specific hand dystonia. *Neuroscience* 2013; 250:434-45. doi: 10.1016/j.neuroscience.2013.07.027 (IF: 3.122)
58. **Tecchio F**, Cancelli A, Cottone C, Tomasevic L, Devigus B, Zito G, Ercolani M, Carducci F. Regional personalized electrodes to select transcranial current stimulation target. *Front Hum Neurosci*. 2013; 7: 131-4. (IF: 2.71)
59. Porcaro C, Coppola G, Pierelli F, Seri S, Di Lorenzo G, Tomasevic L, Salustri C, **Tecchio F**. Multiple frequency functional connectivity in the hand somatosensory network: an EEG study. *Clin Neurophysiol* 2013 doi:pii: S1388-2457(12)00798-5. 10.1016/j.clinph.2012.12.004. (IF: 3.406)
60. Assenza G, Zappasodi F, Pasqualetti P, Vernieri F, **Tecchio F**. A contralesional EEG power increase mediated by interhemispheric disconnection provides negative prognosis in acute stroke. *Restor Neurol Neurosci*. 2013; 31:177-88 (IF: 4.179)
61. Cottone C*, Tomasevic L*, Porcaro C, Filligoi G, **Tecchio F**. Physiological Aging Impacts the Hemispheric Balances of Resting-State Primary Somatosensory Activities. *Brain Topogr*. 2013; 26: 186-199 (IF: 3.455)
62. Tomasevic L, Zito G, Pasqualetti P, Filippi M, Landi D, Ghazaryan A, Lupoi D, Porcaro C, Bagnato F, Rossini P, **Tecchio F**. Cortico-muscular coherence as an index of fatigue in multiple sclerosis. *Mult Scler*. 2013; 19:334-43 www.aism.it/index.aspx?codpage=2012_07_ricerca_fatica (IF: 4.255)
63. Graziadio S, Tomasevic L, Assenza G, **Tecchio F**, Eyre JA. The myth of the 'unaffected' side after unilateral stroke: Is reorganisation of the non-infarcted corticospinal system to re-establish balance the price for recovery? *Exp Neurol*. 2012; 238:168-75 (IF: 4.699)
64. Pellegrino G, Tomasevic L, Tombini M, Assenza G, Bravi M, Sterzi S, Giacobbe V, Zollo L, Guglielmelli E, Cavallo G, Vernieri F, **Tecchio F**. Inter-hemispheric coupling changes associate with motor improvements after robotic stroke rehabilitation. *Restor Neurol Neurosci*. [Restorative Neurology and Neuroscience] 2012; 30:

65. Di Pino G, Porcaro C, Tombini M, Assenza G, Pellegrino G, **Tecchio** F, Rossini PM. A neurally-interfaced hand prosthesis tuned inter-hemispheric communication. *Restor Neurol Neurosci*. 2012; 30: 407-18. (IF: 2.929)
66. **Tecchio** F, Assenza G, Zappasodi F, Mariani S, Salustri C, Squitti R. Glutamate-mediated primary somatosensory cortex excitability correlated with circulating copper and ceruloplasmin. *Int J Alzheimers Dis*. 2011: 292593. doi: 10.4061/2011/292593.
67. Pittaccio S, Zappasodi F, Viscuso S, Mastrolilli F, Ercolani M, Passarelli F, Molteni F, Besseghini S, Rossini PM, **Tecchio** F. Primary sensory and motor cortex activities during voluntary and passive ankle mobilisation by the SHADE ortosis. *Hum Brain Mapp*, 2011; 32:60-70. (IF: 6.256)
68. **Tecchio** F, Zappasodi F, Assenza G, Tombini M, Vollaro S, Barbati G, Rossini PM. Anodal Transcranial Direct Current Stimulation Enhances Procedural Consolidation. *J Neurophysiol* 2010; 104: 1134–1140 (IF: 3.483)
69. Vernieri F, Assenza G, Maggio P, Tibuzzi F, Zappasodi F, Altamura C, Corbetta M, Trotta L, Palazzo P, Ercolani M, **Tecchio** F, Rossini PM. Cortical neuromodulation modifies cerebral vasomotor reactivity. *Stroke* 2010; 41:2087-90. (IF: 7.041)
70. Salustri C, Squitti R, Zappasodi F, Ventriglia M, Bevacqua MG, Fontana M, Rossini PM, **Tecchio** F. Oxidative stress and brain glutamate-mediated excitability in depressed patients. *J Affect Disord* 2010; 127:321-5 (IF: 3.763)
71. Graziadio S, Basu A, Tomasevic L, Zappasodi F, **Tecchio** F, Eyre JA. Developmental tuning and decay in senescence of oscillations linking the corticospinal system. *J Neurosci*, 2010; 30:3663-3674. (IF: 7.178)
72. Dell'Acqua ML, Landi D, Zito G, Zappasodi F, Lupoi D, Rossini PM, Filippi MM, **Tecchio** F. Thalamo-cortical sensorimotor circuit in Multiple Sclerosis: an integrated structural and electrophysiological assessment. *Hum Brain Mapp*, 2010; 31:1588-600
http://www.aism.it/index.aspx?codpage=news_2010_06_conessioni_nervose (IF: 6.256)
73. Betti V, Zappasodi F, Rossini PM, Aglioti S, **Tecchio** F. Synchronous with your feelings: sensorimotor gamma-band and empathy for pain. *J Neurosci*, 2009; 29:12384-92. (IF: 7,452)
74. Medaglia MT, **Tecchio** F, Seri S, Di Lorenzo G, Rossini PM, Porcaro C. Contradiction in universal and particular reasoning. *Hum Brain Mapp*. 2009; 30:4187-97 (IF: 5.395)
75. Tombini M, Zappasodi F, Zollo L, Pellegrino G, Cavallo G, **Tecchio** F, Guglielmelli E, Rossini PM. Brain activity preceding a 2D manual catching task. *Neuroimage*. 2009; 47:1735-46. (IF: 6.884)
76. Porcaro C, Coppola G, Di Lorenzo G, Zappasodi F, Siracusano A, Pierelli F, Rossini PM, **Tecchio** F, Seri S. Hand somatosensory sub-cortical and cortical sources assessed by Functional Source Separation: an EEG study. *Hum Brain Mapp*, 2009; 30: 660-674 (IF: 5.395)
77. Assenza G, Zappasodi F, Squitti R, Altamura C, Ventriglia M, Ercolani M, Quattrocchi C, Lupoi D, Passarelli F, Vernieri F, Rossini PM, **Tecchio** F. Neuronal functionality assessed by magnetoencephalography is related to oxidative stress system in acute ischemic stroke. *Neuroimage* 2009; 44: 1267–1273 (IF: 6.884)
79. Porcaro C, Zappasodi F, Rossini PM, **Tecchio** F. Choice of multivariate autoregressive model order affecting real network functional connectivity estimate. *Clin Neurophys* 2009; 120:436-48 (IF: 2.972)
80. Menon C, de Negueruela C, Milláne J, Tonet O, Carpi F, Broschart M, Ferrez P, Butteld A, **Tecchio** F, Sepulveda F, Citi L, Laschi C, Tombini M, Dario P, Rossini PM, De Rossi D. Prospects of brain-machine interfaces for space system control. *Acta Astronautica* 2009,64 (4): 448-456 (IF: 0.289)
81. Rossini PM and **Tecchio** F. On primary cortical hand representation in the left and right hemispheres. *Clin Neurophysiol Editorial*, 2008; 119: 2421-3 (IF: 2.468)
82. **Tecchio** F, Zito G, Zappasodi F, Dell'Acqua ML, Landi D, Nardo D, Lupoi N, Rossini PM, Filippi MM. Intra-cortical connectivity in Multiple Sclerosis: a neurophysiological approach. *Brain* 2008; 131: 1783-1792 (IF: 8.568)
83. **Tecchio** F, Melgari JM, Zappasodi F, Porcaro C, Milazzo D, Cassetta E, Rossini PM. Sensorimotor integration in

focal task-specific hand dystonia: a MEG assessment. *Neuroscience*, 2008; 154:563-71 (IF: 3.352)

84. **Tecchio F**, Zappasodi F, Porcaro C, Barbati G, Assenza G, Salustri C, Rossini PM. High-gamma band activity of primary hand cortical areas: a sensorimotor feedback efficiency index. *Neuroimage*, 2008; 40: 256-64 (IF: 5.457)
85. **Tecchio F**, Zappasodi F, Pasqualetti P, De Gennaro L, Pellicciari MC, Ercolani M, Squitti R, Rossini PM. Age dependence of primary motor cortex plasticity induced by Paired Associative Stimulation. *Clinical Neurophysiol*, 2008; 119: 675-82 (IF: 2.468) Porcaro C, Barbati G, Zappasodi F, Rossini PM and **Tecchio F**. Hand sensory-motor cortical network assessed by Functional Source Separation. *Hum Brain Mapp*, 2008; 29:70-81 (IF: 6.151)
86. Barbati G, Porcaro C, Hadjipapas A, Adjamian P, Pizzella V, Romani G-L, Seri S, **Tecchio F**, and Barnes GR. Functional Source Separation applied to induced visual gamma activity. *Hum Brain Mapp*, 2008; 29:131-41. (IF: 6.151)
87. Rossini PM, Altamura C, Ferreri F, Melgari JM, **Tecchio F**, Tombini M, Pasqualetti P, Vernieri F. Neuroimaging experimental studies on brain plasticity in recovery from stroke. *Europa Medicophys*. 2007; 43:241-54.
88. Chiovenda P, Pasqualetti P, Zappasodi F, Ercolani M, Milazzo D, Tomei G, Capozzella A, Tomei F, Rossini PM, **Tecchio F**. Environmental noise-exposed workers: Event-related potentials, neuropsychological and mood assessment. *Int J Psychophysiol*, 2007 65:228-37 (IF: 2.247)
89. **Tecchio F**, Zappasodi F, Tombini M, Caulo M, Vernieri F, Rossini PM. Interhemispheric Asymmetry of Primary Hand Representation and Recovery after Stroke: a MEG Study. *Neuroimage*, 2007; 36: 1057–1064 (IF: 5.559)
90. **Tecchio F**, Porcaro C, Barbati G, Zappasodi F. Functional Source Separation and hand cortical representation for BCI feature extraction. *J Physiol*, 2007; 580:703-721. Review. (IF: 4.272)
91. Zappasodi F, Tombini M, Milazzo D, Rossini PM, **Tecchio F**. Delta dipole density and strength in acute monohemispheric stroke. *Neuroscience Letters* 2007; 416:310-4 (IF: 1.898)
92. **Tecchio F**, Graziadio S, Barbati G, Sigismondi R, Zappasodi F, Porcaro C, Valente G, Balsi M, Rossini PM. Somatosensory dynamic gamma-band synchrony: a neural code of sensorimotor dexterity. *Neuroimage*, 2007; 35:185-193 (IF: 5.559)
93. Altamura C, Torquati K, Zappasodi F, Ferretti A, Pizzella V, Tibuzzi F, Vernieri F, Pasqualetti P, Landi D, Del Gratta C, Romani G-L, Rossini PM, **Tecchio F**. fMRI-vs-MEG evaluation of post-stroke interhemispheric asymmetries in primary sensorimotor hand areas. *Exp Neurol*, 2007; 204:631-639 (IF: 3.767)
94. Salustri C, **Tecchio F**, Zappasodi F, Bevaqua G, Fontana M, Ercolani M, Milazzo D, Squitti R, Rossini PM. Cortical excitability and rest activity properties in depressed patients. *J Psychiatr Neurosci*, 2007; 32:259-66. (IF: 3.914)
95. **Tecchio F**, Pasqualetti P, Zappasodi F, Tombini M, Lupoi D, Vernieri F, Rossini PM. Outcome prediction in acute monohemispheric stroke via magnetoencephalography. *J Neurol* 2007; 254:296-305 (IF: 2.844)
96. **Tecchio F**, Zappasodi F, Tombini M, Oliviero A, Pasqualetti P, Vernieri F, Ercolani M, Pizzella V, Rossini PM. Brain plasticity in recovery from stroke: an MEG assessment. *Neuroimage* 2006; 32: 1326-1334 (IF: 5.559)
97. Tonet O, **Tecchio F**, Sepulveda F, Citi L, Tombini M, Marinelli M, Focacci F, Laschi C, Dario P, Rossini PM. Critical review and future perspectives of non-invasive brain-machine interfaces. *ESA Ariadna Study 05/6402 –ESACONTRACT 19707/06/NL/HE*, 2006.
98. Porcaro C, Zappasodi F, Barbati G, Palustri C, Pizzella V, Rossini PM, **Tecchio F**. Fetal auditory responses to external sounds and mother's heart beat: detection improved by Independent Component Analysis. *Brain Res*. 2006; 1101: 51-58 (IF: 2.296)
99. **Tecchio F**, Zappasodi F, Melgari JM, Porcaro C, Cassetta E, Rossini PM. Sensory-motor interaction in primary hand cortical areas: a MEG assessment. *Neuroscience* 2006; 141:533-542. (IF: 3.427)
100. Zappasodi F, Pasqualetti P, Ercolani M, Pizzella V, Rossini PM, **Tecchio F**. Hand cortical representation at rest and during activation: gender and age effects in the two hemispheres. *Clinical Neurophysiology* 2006;

101. **Tecchio** F, Porcaro C, Zappasodi F, Pesenti A, Ercolani M, Rossini PM. Cortical short-term fatigue effects assessed via rhythmic brain-muscle coherence. *Exp Brain Res* 2006; 174:144-51 (IF: 2.118)
102. **Tecchio** F, Zappasodi F, Pasqualetti P, Tombini M, Caulo M, Ercolani M, Rossini PM. Long-term effects of stroke on neuronal rest activity in rolandic cortical areas. *J Neurosci Res* 2006; 83:1077-1087 (IF: 3.239)
24
103. Barbati G, Sigismondi R, Zappasodi F, Porcaro C, Graziadio S, Valente G, Balsi M, Rossini PM, **Tecchio** F. Functional Source Separation from Magnetoencephalographic Signals. *Hum Brain Mapp* 2006; 27:925-934 (IF: 4.815)
104. Brancucci A, Babiloni C, Vecchio F, Galderisi S, Mucci A, **Tecchio** F, Romani G-L, Rossini PM. Decrease of functional coupling between left and right auditory cortices during dichotic listening: an EEG study. *Neuroscience* 2005; 136:323-32.
105. **Tecchio** F, Zappasodi F, Pasqualetti P, Tombini M, Salustri C, Oliviero A, Pizzella V, Vernieri F, Rossini PM. Rhythmic brain activity at rest from rolandic areas in acute mono-hemispheric stroke: a magnetoencephalographic study. *Neuroimage* 2005; 28:72-83
106. Babiloni C, Brancucci A, Pizzella V, Romani GL, **Tecchio** F, Torquati K, Zappasodi F, Arendt-Nielsen L, Chen A CN and Rossini PM. Contingent negative variation of parasympathetic cortex increases during the expectancy of painful sensorimotor events. A magnetoencephalography study. *Behav Neurosci* 2005; 119: 491-502.
107. Babiloni C, Cassetta E, Chioyenda P, Del Percio C, Ercolani M, Moretti DV, Moffa F, Pasqualetti P, Pizzella V, Romani G-L, **Tecchio** F, Zappasodi F, and Rossini PM. Alpha rhythms in mild demented during visual delayed choice reaction time tasks. A MEG study. *Brain Research Bulletin* 2005; 65(6):457-470
108. **Tecchio** F, Zappasodi F, Pasqualetti P, Rossini PM. Neural connectivity in hand sensorimotor brain areas: an evaluation by evoked fields morphology. *Hum Brain Mapp.* 2005; 24: 99-108
109. Oliviero A, **Tecchio** F, Zappasodi F, Pasqualetti P, Salustri C, Lupoi D, Ercolani M, Romani GL, Rossini PM. Brain sensorimotor hand area functionality in acute stroke: insights from magnetoencephalography. *Neuroimage* 2004, 23:542-550
110. **Tecchio** F, De Lucia M, Salustri C, Zappasodi F, Babiloni C, Bottaccio M, Montuori M, Pietronero L, Rossini PM. District-related frequency specificity in hand cortical representation: dynamics of regional activation and intra-regional functional connectivity. *Brain Res* 2004, 1014:80-86
111. Babiloni C, Vecchio F, Babiloni F, Brunelli GA, Carducci F, Cincotti F, Pizzella V, Romani GL, **Tecchio** FT, Rossini PM. Coupling between "hand" primary sensorimotor cortex and lower limb muscles after ulnar nerve surgical transfer in paraplegia. *Behav Neurosci* 2004;118:214-22
112. Barbati G, Porcaro C, Zappasodi F, Rossini PM and **Tecchio** F. Optimization of ICA approach for artifact identification and removal in MEG signals. *Clinical Neurophysiology.* 2004; 115:1220-32
113. Brancucci A, Babiloni C, Babiloni F, Galderisi S, Mucci A, **Tecchio** F, Zappasodi F, Pizzella V, Romani G-L and Rossini PM. Inhibition of auditory cortical responses to ipsilateral stimuli during dichotic listening: evidence from magnetoencephalography. *Eur J Neurosci*, 2004; 19:2329-36
114. Babiloni C, Binetti G, Cassetta E, Cerboneschi D, Dal Forno G, Del Percio C, Ferreri F, Ferri R, Lanuzza B, Miniussi C, Moretti D, Nobili F, Pascual-Marqui RD, Rodriguez G, Romani GL, Salinari S, **Tecchio** F, Vitali P, Zanetti O, Zappasodi F and Rossini PM. Mapping distributed sources of cortical rhythms in mild Alzheimer's disease. A multi-centric EEG study. *Neuroimage*, 2004; 22:57-67
115. Rossini PM, Altamura C, Ferretti A, Vernieri F, Zappasodi F, Caulo M, Pizzella V, Del Gratta C, Romani G-L, **Tecchio** F. Does cerebrovascular disease affect the coupling between neuronal activity and local hemodynamics? *Brain*, 2004; 127:99-110 (IF: 8.201)
116. **Tecchio** F, Babiloni C, Zappasodi F, Vecchio F, Pizzella V, Romani G-L, Rossini PM. Gamma synchronization in human primary somatosensory cortex as revealed by somatosensory evoked neuromagnetic fields. *Brain Res* 2003; 986: 63-70

117. **Tecchio** F, Benassi F, Zappasodi F, Emberti Gialloreti L, Palermo M, Seri S, Rossini PM. Auditory sensory processing in autism: an MEG study. *Biol Psych*, 2003; 54: 647-654
118. **Tecchio** F, Padua, L, Aprile, I, Rossini PM: Carpal Tunnel Syndrome modiPes sensory hand cortical somatotopy: a MEG study. *Hum Brain Mapping* 2002; 17:28–36
119. Rossi S, **Tecchio** F, Pasqualetti P, Ulivelli M, Pizzella V, Romani G-L, Passero S, Battistini N, Rossini PM. Somatosensory processing during movement observation in humans. *Clin Neurophysiol*, 2002; 113:16-24
120. Zappasodi F, **Tecchio** F, Pizzella V, Cassetta E, Romano G V, Filligoi G, Rossini PM. Detection of fetal auditory evoked responses by means of magnetoencephalography. *Brain Res* 2001; 917:167-73
121. Babiloni F, Carducci F, Cincotti F, DelGratta C, PizzellaV, Romani GL, Rossini PM, **Tecchio** F, Babiloni C. Current source density estimate of combined EEG and MEG data related to voluntary movements. *Hum Brain Mapp* 2001; 14:197-209
122. Del Gratta C, Pizzella V, **Tecchio** F, Romani G-L. Magnetoencephalography - a non invasive brain imaging method with 1 ms time resolution *Rep Prog Phys*, 2001,64:1759-1814
123. Perani D, Brunelli GA, Tettamanti M, Scifo P, **Tecchio** F, Rossini PM, Fazio F. Remodelling of sensorimotor maps in paraplegia: a functional magnetic resonance imaging study after a surgical nerve transfer. *Neurosci Lett* 2001;303(1):62-66
124. Rossini PM, **Tecchio** F, Pizzella V, Lupoi D, Cassetta E., Pasqualetti P Interhemispheric differences of sensory hand areas after monohemispheric stroke: meg/mri integrative study. *Neuroimage*, 2001;14: 474-485
125. **Tecchio** F, Salustri C, Thaut MH, Pasqualetti P, Rossini PM. Conscious and pre-conscious adaptation to rhythmic auditory stimuli: a magnetoencephalographic study of human brain responses. *Exp Brain Res* 2000; 135 (2):222-230
126. **Tecchio** F, Pasqualetti P, Pizzella V, Romani GL, Rossini PM. Morphology of somatosensory evoked Pelds: inter-hemispheric similarity as a parameter for physiological and pathological neural connectivity. *Neurosci Lett* 2000;287:203-206
127. **Tecchio** F, Bicciolo G, De Campora E, Pasqualetti P, Pizzella V, Indovina I, Cassetta E, Romani GL, Rossini PM. Tonotopic cortical changes following stapes substitution in otosclerotic patients: a magnetoencephalographic study. *Hum Brain Mapp*, 2000; 10: 28-38
128. Pizzella V, **Tecchio** F, Romani G-L, Rossini PM Functional localization of the sensory hand area with respect to the motor central girus knob. *Neuroreport* 1999;10:1-6.
129. Rossini PM, Rossi S, Pasqualetti P, **Tecchio** F. Corticospinal excitability modulation to hand muscles during movement imagery. *Cerebral Cortex*, 1999; 9:161-7
130. Rossi S, Pasqualetti P, **Tecchio** F, Sabato A, Rossini PM. Modulation of corticospinal output to human hand muscles following deprivation of sensory feedback. *Neuroimage* 1998; 8:163-75
131. **Tecchio** F, PM Rossini, V Pizzella, E Cassetta, P Pasqualetti, GL Romani. A neuromangetic normative data set for hemispheric sensory hand cortical representations and their interhemispheric differences. *Brain Res Protoc*. 1998; 2: 306-314.
132. Rossi S, P Pasqualetti, F **Tecchio**, F Pauri, PM Rossini. Corticospinal excitability modulation during mental simulation of wrist movements in human subjects. *Neurosci Lett* 1998, 243:147-151
133. Rossini PM, **Tecchio** F, Pizzella V, Lupoi D, Cassetta E, Pasqualetti P, Romani GL, Orlacchio A On the reorganization of sensory hand areas after mono-hemispheric lesion: a functional (meg)/ anatomical (mri) integrative study. *Brain Res* 1998, 782:153-166
134. **Tecchio** F, Rossini PM, Pizzella V, Cassetta E, Romani GL Spatial properties and interhemispheric differences of the sensory hand cortical representation: a neuromagnetic study. *Brain Res* 1997,767:100-8

135. Rossini PM , Rossi S, Pasqualetti P, **Tecchio** F. Effetti della simulazione mentale di movimenti sull'output motorio cortico-spinale. valutazione tramite stimolazione magnetica transcranica. Rivista italiana di Neurologia. 1996,155-62
136. Rossini PM , Rossi S, **Tecchio** F, Pasqualetti P, Finazzi-Agrò A, Sabato A. Focal brain stimulation in healthy humans: motor maps changes following partial hand sensory deprivation. Neurosci Lett 1996, 214:191-195
137. Rossini PM, **Tecchio** F, Sabato A, Finazzi-Agrò A, Pasqualetti P, Rossi S. The role of cutaneous inputs during magnetic transcranial stimulation. Muscle&Nerve 1996, 19:1302-9
138. Hultin L, P.M. Rossini, G.L. Romani, P. Högstedt, F. **Tecchio**, V. Pizzella. Neuromagnetic localization of the late component of the contingent negative variation. Electroenceph clin Neurophysiol 1996,98:435-48
139. Rossini PM, Caramia D, M.A. Bassetti, P. Pasqualetti, F. **Tecchio**, G. Bernardi. Somatosensory evoked potentials during ideation and execution of individual Pnger movements Muscle&Nerve 1996,19:191-202
140. Rossini PM, G. Deuschl, V.Pizzella, F.**Tecchio**, A. Pasquarelli, E. Feifel, G.L. Romani and C.H. Lüking. Topography and sources of electromagnetic cerebral responses to electrical and air-puffstimuli on the hand Electroenceph clin Neurophysiol, 1996,100:229-239
141. Kristeva-Feige R., Rossi S., Pizzella V., Sabato A., **Tecchio** F., Feige B., Romani G.L., Edrich J. and Rossini P.M. Changes in movement-related brain activity during transient deafferentation: a neuromagnetic study. Brain Res 1996,714:201-8
142. Rossini PM, Rossi S, **Tecchio** F, Sciarretta G, Caramia MD, Iani C, Finazzi-Agrò A. A method to evaluate the effects of transcranial stimulation on upper limb motor units. Neurosci Prot 1996,70(3):1-15
143. Rossini PM, Pauri F, Cicinelli P, Pasqualetti P, Traversa R, **Tecchio** F. Neuromagnetic recordings and magnetic brain stimulation in the evaluation of sensorimotor hand area interhemispheric differences: normative, experimental and patients' data. Electroencephalogr Clin Neurophysiol Suppl. 1999; 50:210-20. Review
144. Rossini PM, Rossi S, **Tecchio** F. Clinical utility of evoked potentials. Electroencephalogr Clin Neurophysiol Suppl. 1996; 46:65-72. Review
145. Kristeva-Feige R, Rossi S, Pizzella V, **Tecchio** F, Romani G-L, Erne´ S, Edrich J, Orlacchio A and Rossini PM. Neuromagnetic fields of the brain evoked by voluntary movement and electrical stimulation of the index finger. Brain Res 1995,682:22-28.
146. Rossini PM, Martino G, Narici L, Pasquarelli A, Peresson M, Pizzella V, **Tecchio** F, Torrioli G, Romani GL. Short-term brain "plasticity" in humans: transient finger representation changes in sensory cortex somatotopy following ischemic anaesthesia. Brain Research, 1994, 642: 169-177.
147. Rossini PM, Narici L, Martino G, Pasquarelli A, Peresson M, Pizzella V, **Tecchio** F and Romani G-L. Analysis of inter-hemispheric asymmetries of somatosensory evoked magnetic fields to right and left median nerve stimulation. Electroenceph. clin. Neurophysiol. 1994, 91:476-482
148. **Tecchio** F. Messa a fuoco sul cervello. Sapere 2001(Apr);66-74
149. Foglietti V, Casciardi S, A. Pasquarelli, V. Pizzella, F. **Tecchio**, G. Torrioli and G-L. Romani. A 28 Channel Neuromagnetometer. Physica Medica, 1993, vol. IX, Supp.1:62-64

● PERSONAL DATA PROCESSING

I authorize treatment of my personal data in conformity with law no. 196. dated 30/06/2003 and art. 13 GDPR 679/16.