**Curriculum Vitae**
Dr. Matteo Feurra

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***Academic History***

***2014-present.*** Assistant Professor, School of Psychology, National Research University, Higher School of Economics. Moscow, Russian Federation.

***2014-present.*** Group Leader of the Memory and Motor Control Group at the Centre for Cognition and Decision Making, National Research University, Higher School of Economics, Moscow, Russian Federation.

***2011-2014*** Research fellow and Principal Investigator of the three-year grant “Memory Enhancement by Advanced Non Invasive Brain Stimulation: A project on neuro-rehabilitation of patients with memory diseases”. Department of Neurology, Neurology and Clinical Neurophysiology section. University of Siena.

***2010-2011*** Post-doctoral fellow. Department of informational engineering, Neurophysiology and Neuroscience, University of Siena. Coordinator: Prof. Domenico Prattichizzo. Supervisor: Dr. Simone Rossi.

***2009-2010*** Post-doctoral fellow. Department of Neurology, Neurology and Clinical Neurophysiology section. University of Siena. Supervisor: Dr. Simone Rossi.

***2009*** PhD in Psychological Sciences. Department of Psychology, University of Florence. Supervisors: Prof. Nicoletta Berardi and Maria Pia Viggiano.

***2009*** Psychologist, Professional body number: 5442

***2007*** Visiting PhD student. Institute of Cognitive Neuroscience, University College of London (UCL), United Kingdom. Supervisor: Prof. Vincent Walsh.

***2004*** Laurea in Psicologia Sperimentale (five-year combined BSc and MSc in Experimental Psychology), University of Florence.

***Awards and grants***

***2017-2018*** ***"***Neuronet" grant *(http://rusneuro.net/?utm_campaign=programi-razvitie-nti-i-u&utm_source=sendpulse&utm_medium=email)*: in the framework of "Neuro Assistance Technology " project (5.000.000 rubles).

***2016-2019*** Co-investigator *for a* Russian Science Foundation grant (contract number: 17-11-01273): Oscillations in Working Memory: coordinator (18Ml Rubles)

***2013*** Young Investigator prize. TMS Summer School, Oxford, UK.

***2011*** Young Italian Researchers Grant, Italian Ministry of Health, “Memory Enhancement by Advanced Non Invasive Brain Stimulation: A project on neuro-rehabilitation of patients with memory diseases” (352.000 euros). Project Code: GR-2009-1591481.

***2009*** Poster prize: “Role of the left prefrontal cortex in episodic encoding of faces: an interference study by rTMS”. Italian Society for Clinical Neurophysiology.

***Teaching Experience***

***2014 -2016*** Assistant Professor in Cognitive Neuroscience. Faculty of Psychology, National Research University, Higher School of Economics. Moscow, Russian Federation.

***2010 -2011*** Assistant Lecturer in General Psychology. Faculty of Medicine, University of Florence

***2010*** Assistant Lecturer in Neuroeconomy. Faculty of Psychology, University of Florence.

***2005-2006*** Assistant Lecturer in Communication Psychology. Faculty of Architecture, University of Florence.

***2005-2006*** Assistant Lecturer in Perception Psychology. Faculty of Architecture, University of Florence.

***Selected Collaborations***

***2015-2016*** Prof. Yulia Kovas . Goldsmiths, University of London.

***2015-2016*** Prof. David Bartrés-Faz. Department of Psychiatry and Clinical Psychobiology, University of Barcelona Barcelona, Spain.

***2014-2016*** Professor Yury Shtyrov, Head of MEG Group, Institute for Clinical Medicine - Center for Functionally Integrative Neuroscience (CFIN), Denmark.

***2015-2016*** Dr. Roi Cohen Kadosh. University of Oxford. Oxford, UK.

***2014-2016*** Prof. Olga Dragoy, Neurolinguistics Laboratory. National Research University Higher School of Economics, Moscow.

***2013-2015*** Prof. Rumyana Kristeva, Klinik für Neurologie und Neurophysiologie, Freiburg, Germany.

***2011-2015*** BrainTrends, Applied Neuroscience Company, Rome, Italy.

***2010-2015*** Prof. Domenico Prattichizzo, Department of informational engineering, Neurophysiology and Neuroscience, University of Siena, Italy.

***2008-2010*** Prof. Walter Paulus, Department of Clinical Neurophysiology, Universitätsmedizin Göttingen, Germany.

***2007-2008*** Prof. Patrick Haggard, Institute of Cognitive Neuroscience, University College London, London, UK.

***Publications***

***2019***

Feurra, M., Blagoveshchensky, E., Nikulin, V. V., Nazarova, M., Lebedeva, A., Pozdeeva, D. et al. (2019). State-Dependent Effects of Transcranial Oscillatory Currents on the Motor System during Action Observation. *Sci.Rep.,* 9, 12858.

Galli, G., Vadillo, M. A., Sirota, M., Feurra, M., & Medvedeva, A. (2019). A systematic review and meta-analysis of the effects of transcranial direct current stimulation (tDCS) on episodic memory. *Brain Stimul.,* 12, 231-241.

Vorobiova, A. N., Pozdniakov, I., & Feurra, M. (2019). Transcranial Direct Current Stimulation Effects on Memory Consolidation: Timing Matters. *eNeuro.,* 6.

***2018***

Fusco G., Scandola M., Feurra M., Pavone EF., Rossi S., Aglioti SM. Midfrontal theta Alternating current transcranial stimulation modulates behavioural the after adjustment execution error. *Eur.J.Neurosci., 48, 3159-3170.*

Malyutina S., Zelenkova V., Buivolova O., Oosterhuis EJ., Zmanovsky N., Feurra M. Modulating the interhemispheric balance in healthy participants with transcranial direct current stimulation: No significant effects on word or sentence processing. *Brain Lang, 186, 60-66.*

Lanina, A. A., Feurra, M., & Gorbunova, E. S. No Effect of the Right Posterior Parietal Cortex tDCS in Dual-Target Visual Search. *Front Psychol.,* 9, 2112.

***2017***

Yaple Z., Martinez-Saito M., Feurra M., Klucharev V., Shestakova A. Transcranial alternating current stimulation modulates risky decision making in a frequency controlled experiment. *eNeuro.* (In Press)

Shpektor, A., Nazarova, M., Feurra, M. Effects of Transcranial Alternating Current Stimulation on the Primary Motor Cortex by Online Combined Approach with Transcranial Magnetic Stimulation. *J.Vis.Exp.*

Galli, G., Feurra, M., Pavone, EF., Sirotae, Miro., Rossi, S. Dynamic changes in prefrontal cortex involvement during verbal episodic memory formation. *Biol.Psychol. 125, 36-44.*

Vukovic N, Feurra M, Shpektor A, Myachykov A, Shtyrov Y (2017) Primary motor cortex functionally contributes to language comprehension: An online rTMS study. *Neuropsychologia* 96:222-229..

***2016***

Feurra, M., Galli, G., Pavone, EF., Rossi, A., Rossi, S., (2016). Frequency-specific insight into short-term memory capacity. *J. Neurophysiol.* 116(1):153-8.

Galli, G., Santarnecchi, E., Feurra, M., Bonifazi, M., Rossi, S., Paulus, M. P. et al. (2016). Individual and sex-related differences in pain and relief responsiveness are associated with differences in resting-state functional networks in healthy volunteers. *Eur.J.Neurosci*. 43, 486-493.

Cioncoloni, D., Rosignoli, D., Feurra, M., Rossi, S., Bonifazi, M., Rossi, A. et al. (2016). Role of brain hemispheric dominance in anticipatory postural control strategies. *Exp.Brain Res*. 234(7):1997-2005.

***2015***

Shpektor, A., Bartrés-Faz, D., Feurra, M., (2015). The role of BDNF protein in synaptic motor plasticity revealed by Transcranial Direct Current Stimulation. *Front. Aging. Neurosci*. 7:183

***2014***

Cioncoloni, D., Galli, G., Feurra, M., Giovannelli, F., Santarnecchi, E., Bonifazi, M., Rossi, A., Rossi, S. (2014). Differential effects of acute cortisol administration on deep and shallow episodic memory traces: a study on healthy males. *Neurobiology of Learning and Memory*, 114, 186-192

Caliandro, P., Padua, L., Rossi, A., Rossini, PM., Stalberg, E., Feurra, M., Ulivelli, M., Bartalini, S., Giannini, F., Rossi, S. (2014). Jitter of corticospinal neurons during repetitive transcranial magnetic stimulation. Method and possible clinical implications. *Brain Stimulation*. **7,** 4, 580-596

Santarnecchi E, Feurra M, Barneschi F, Acampa M, Bianco G, Cioncoloni D, Rossi A and Rossi S (2014). Time course of corticospinal excitability and autonomic function interplay during and following monopolar tDCS. *Front. Psychiatry* 5:86.

***2013***

Feurra,M., Pasqualetti,P., Bianco,G., Santarnecchi,E., Rossi,A. & Rossi,S. (2013) State-dependent effects of transcranial oscillatory currents on the motor system: what you think matters. *J.Neurosci*, 33, 17483-17489.

Santarnecchi,E., Feurra,M., Galli,G., Rossi,A. & Rossi,S. (2013) Overclock your brain for gaming? Ethical, social and health care risks. *Brain Stimul.*, 6, 713-714.

Santarnecchi,E., Polizzotto,N.R., Godone,M., Giovannelli,F., Feurra,M., Matzen,L., Rossi,A. & Rossi,S. (2013) Frequency-dependent enhancement of fluid intelligence induced by transcranial oscillatory potentials. *Curr.Biol.*, 23, 1449-1453.

Innocenti,I., Cappa,S.F., Feurra,M., Giovannelli,F., Santarnecchi,E., Bianco,G., Cincotta,M. & Rossi,S. (2013) TMS interference with primacy and recency mechanisms reveals bimodal episodic encoding in the human brain. *J.Cogn Neurosci*, 25, 109-116.

Ragazzoni,A., Pirulli,C., Veniero,D., Feurra,M., Cincotta,M., Giovannelli,F., Chiaramonti,R., Lino,M., Rossi,S. & Miniussi,C. (2013) Vegetative versus minimally conscious states: a study using TMS-EEG, sensory and event-related potentials. *PLoS One*, 8, e57069.

***2012***

Bianco,G., Feurra,M., Fadiga,L., Rossi,A. & Rossi,S. (2012) Bi-hemispheric effects on corticospinal excitability induced by repeated sessions of imagery versus observation of actions. *Restor.Neurol.Neurosci*, 30, 481-489.

Feurra,M., Galli,G. & Rossi,S. (2012) Transcranial alternating current stimulation affects decision making. *Front Syst.Neurosci*, 6, 39.

***2011***

Feurra,M., Paulus,W., Walsh,V. & Kanai,R. (2011) Frequency specific modulation of human somatosensory cortex. *Front Psychol.*, 2, 13.

Feurra,M., Bianco,G., Santarnecchi,E., Del,T.M., Rossi,A. & Rossi,S. (2011b) Frequency-dependent tuning of the human motor system induced by transcranial oscillatory potentials. *J.Neurosci*, 31, 12165-12170.

Feurra,M., Bianco,G., Polizzotto,N.R., Innocenti,I., Rossi,A. & Rossi,S. (2011a) Cortico-Cortical Connectivity between Right Parietal and Bilateral Primary Motor Cortices during Imagined and Observed Actions: A Combined TMS/tDCS Study. *Front Neural Circuits*, 5, 10.

Rossi,S., Innocenti,I., Polizzotto,N.R., Feurra,M., De,C.A., Ulivelli,M., Bartalini,S. & Cappa,S.F. (2011) Temporal dynamics of memory trace formation in the human prefrontal cortex. *Cereb.Cortex*, 21, 368-373.

***2010***

Feurra,M., Fuggetta,G., Rossi,S. & Walsh,V. (2010) The role of the left inferior frontal gyrus in episodic encoding of faces: An interference study by repetitive transcranial magnetic stimulation. *Cogn Neurosci*, 1, 118-125.

Giovannelli,F., Silingardi,D., Borgheresi,A., Feurra,M., Amati,G., Pizzorusso,T., Viggiano,M.P., Zaccara,G., Berardi,N. & Cincotta,M. (2010) Involvement of the parietal cortex in perceptual learning (Eureka effect): an interference approach using rTMS. *Neuropsychologia*, 48, 1807-1812.

Innocenti,I., Giovannelli,F., Cincotta,M., Feurra,M., Polizzotto,N.R., Bianco,G., Cappa,S.F. & Rossi,S. (2010) Event-related rTMS at encoding affects differently deep and shallow memory traces. *Neuroimage*, 53, 325-330.

Papeo,L., Longo,M.R., Feurra,M. & Haggard,P. (2010) The role of the right temporoparietal junction in intersensory conflict: detection or resolution? *Exp.Brain Res.*, 206, 129-139.

***2008***

Viggiano,M.P., Giovannelli,F., Borgheresi,A., Feurra,M., Berardi,N., Pizzorusso,T., Zaccara,G. & Cincotta,M. (2008) Disruption of the prefrontal cortex function by rTMS produces a category-specific enhancement of the reaction times during visual object identification. *Neuropsychologia*, 46, 2725-2731.

***2006***

Galli,G., Feurra,M. & Viggiano,M.P. (2006) "Did you see him in the newspaper?" Electrophysiological correlates of context and valence in face processing. *Brain Res.*, 1119, 190-202.

***Editorial and reviewing activities***

- Guest Associate Editor, Neural Plasticity: Research topic titled “Investigating and Modulating Physiological and Pathological Brain Oscillations: The Role of Oscillatory Activity in Neural Plasticity” (2018)

- Guest Associate Editor, Frontiers in Molecular Neuroscience: Research topic titled “ Fundamentals of 21st Century Neuroscience” (2018)

**-** Guest Associate Editor, Frontiers in Neuropsychiatric Imaging and Stimulation. Research topic titled "Non Invasive Brain Stimulation: from neuro-enhancement to cognitive rehabilitation" (2013).

- Peer Review Activities: Journal of Neuroscience Methods, Neuropsychologia, Brain Stimulation, Journal of Neurophysiology, Journal of the American Psychiatric Nurses Association, Frontiers in Human Neuroscience, Clinical Neurophysiology, Expert Review of Neurotherapeutics, Frontiers in Human Neuroscience, Behavioral Brain Research, Brain Stimulation, Cerebral Cortex, International Journal of Psychophysiology, Scientific Report.

***Selected Conference proceedings***

***2017***

Continuous theta-burst stimulation of medial prefrontal cortex enhances schema-linked encoding. AN Vorobiova, AA Shpektor, M Feurra. *Brain Stimulation.*

Effects of tDCS over Broca's area coupled with linguistic training are not specific to language. V Zelenkova, S Malyutina, M Feurra. *Brain Stimulation.*

***2014***

Frequency-specific insight into memory for digits. M Feurra, G Galli, EF Pavone, A Rossi, S Rossi. *Clinical Neurophysiology* 125, S29.

***2013***

State dependent effects of transcranial alternating current stimulation of the motor system: What you think matters.
M Feurra, P Pasqualetti, G Bianco, E Santarnecchi, A Rossi, S Rossi. *Clinical Neurophysiology* 124 (10), e137-e138..

Frequency-dependent boosting of fluid intelligence during weak prefrontal alternate current stimulation.
S Rossi, E Santarnecchi, M Godone, NR Polizzotto, F Giovannelli, M Feurra, A. *Clinical Neurophysiology* 124 (10), e54.

Effects of transcranial alternating current stimulation (tACS) on spontaneous motor tempo and sensorimotor synchronization: Preliminary data. F Giovannelli, I Innocenti, M Feurra, E Santarnecchi, A Borgheresi, ED Sordo et al.
*Clinical Neurophysiology* 124 (11), e220.

***2011***

Functional cortical connectivity in vegetative state and minimally conscious state: an investigation by transcranial magnetic stimulation-evoked potential. C Pirulli, A Ragazzoni, D Veniero, S Rossi, M Feurra, M Cincotta, F Giovannelli, R Chiaromonti, M Lino, C Miniussi. *Clinical Neurophysiology* 122, S180.

Frequency-dependent tuning of human motor system induced by transcranial oscillatory potentials. M Feurra, G Bianco, M Del Testa, E Santarnecchi, A Rossi, S Rossi. *Clinical Neurophysiology* 122, S126.

***2010***

Are motor imagery and action observations innate or learned mechanisms? A single-pulse TMS study. G Bianco, M Feurra, L Fadiga, A Rossi, S Rossi. *Clinical Neurophysiology* 121, S277-S278.

***2009***

Role of the left prefrontal cortex in episodic encoding of faces: an interference study by repetitive transcranial magnetic stimulation. Feurra, M; Fuggetta, G; Rossi, S; Walsh, V. In: *European Journal of Neurology*. (pp. 452 - 452). WILEY-BLACKWELL PUBLISHING, INC.

***2008***

Relationship between episodic and semantic memory in face recognition: a rTMS investigation. M Feurra, G Fuggetta, V Walsh,. *Brain Stimulation* 1 (3), 243.

Disruption of the prefrontal cortex function by rTMS produces a category-specific enhancement of the reaction times during visual object identification. F Giovannelli, A Borgheresi, M Feurra, N Berardi, T Pizzorusso, G Zaccara, MP Viggiano, M Cincotta. *Brain Stimulation* 1 (3), 318-319.

Involvement of the right parietal cortex in perceptual learning (Eureka effect): an interference approach using rTMS F Giovannelli, A Borgheresi, D Silingardi, M Feurra, G Zaccara, MP Viggiano, T Pizzorusso, N Berardi, M Cincotta. *Brain Stimulation*. 1 (3), 319.

Electrophysiological evidence for the role of extrastriate visual cortex in visual awareness. G Fuggetta, J Silvanto, N Muggleton, E Pavone, M Feurra, L Sartori, C Marzi. *Journal of Vision* 8 (6), 486-486.

***2007***

Electrophysiological correlates of motion priming: A combined ERP/TMS study. G Fuggetta, M Feurra, EF Pavone, CA Marzi, V Walsh, G Campana. *Perception* 36, 89-89.

***Research Methods:***

- TMS (Transcranial Magnetic Stimulation)
- EEG (Electroencephalography)
- tDCS (Transcranial Direct Current Stimulation)
- tACS (Transcranial Alternate Current Stimulation)
- tRNS (Transcranial Random Noise Stimulation)
- EMG (Electromyography)

***Lab and Computer Experience:***

- Brainsight Frameless for TMS
- Softaxic optical, neuro-navigation system
- Neuroscan for recording EEG data
- Neuroscan for analyzing EEG data
- Brain Vision (EEG Analyzer and Recorder)
- E-Prime for running behavioural and ERP experiment
- Presentation for running behavioural and ERP experiment
- Ms Office (Word, Excel, FrontPage, Outlook, PowerPoint)
- SPSS windows-syntax for statistical analyses
- Irfanview, Paint Shop Pro, Photoshop for editing visual stimuli

***Languages***

- Italian mother tongue
- English: fluent

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