

Alessandra Tafuro

Curriculum vitae

Personal Information

Birth Saronno, 26th April 1991
Nationality Italian

Research

Mar. 2020–current **Postdoctoral Researcher**, *Department of Neuroscience, Biomedicine and Movement, University of Verona*, Supervisor: Prof. Silvia Savazzi
Project title *Perceptual Awareness: electrophysiological and brain imaging studies*

Education

Oct. 2016–Jan. 2020 **PhD in Psychological Sciences (Cycle XXXII)**, *Department of Neuroscience, University of Padova*, Supervisor: Prof. Antonino Vallesi; Co-supervisor: Dr. Ettore Ambrosini, Defence Day: 16.01.2020

Thesis title *Tracking cognitive control: how do we solve interference?*

2013–2015 **English Master Degree in Cognitive Neuroscience and Clinical Neuropsychology**, *University of Padova*, grade 110/110 cum laude

Thesis title *Cued memory reactivation of emotional stimuli during sleep and pattern analysis using an EEG linear classifier*, Supervisor: Prof. Michela Sarlo

2010–2013 **Bachelor's Degree in Scienze Psicologiche Cognitive e Psicobiologiche**, *University of Padova*, grade 106/110

Thesis title *Emotional modulation of attention orienting in snake phobics*, Supervisor: Prof. Michela Sarlo

2005–2010 **High School**, *Liceo Classico Stefano Maria Legnani*, Saronno, grade 78/100

Institutional Responsibilities

Feb. 2019–Oct. 2019 **Representative of PhD students**, *Department of Neuroscience, University of Padova*

Traineeship Experience

PhD

- Mar. 2019–Jul. 2019 **University of München, LMU, Department of Psychology**
- Main activities Analysis of scalp-level EEG data co-registered with 2D kinematic (mouse) data using:
- time-frequency decomposition (ERSP) and inter-trial phase coherence (ITC);
 - cross-channel and cross-frequency functional connectivity (PAC, PLV)
- Supervisor Prof. Paul Sauseng

Post-lauream

- May 2016–Oct. 2016 **University of Tübingen, Institute of Medical Psychology and Behavioral Neurobiology**
- Main activities Study of rehabilitative protocols for patients with stroke and spinal cord injury, using brain-machine interfaces, transcranial magnetic stimulation, functional electrical stimulation and robotic exoskeleton
- Supervisors Dr. Ander Ramos-Murguialday and Prof. Niels Birbaumer
- Nov. 2015–Apr. 2016 **I.R.C.C.S San Camillo Hospital, Venice, Neurophysiology Department**
- Main activities Analysis of EEG-based functional and effective connectivity using Matlab and SIFT toolbox; cognitive assessment of healthy elderly through neuropsychological tests; cognitive assessment of MCI patients with MEG
- Supervisors Dr. Chiara Volpato and Dr. Stefano Silvoni

Master

- Feb. 2015–Aug. 2015 **University of Manchester (through Erasmus⁺ Programme), Neuroscience and Psychology of Sleep (NaPS) Laboratory**
- Main activities Subjects recruitment, overnight data collection and data analysis in a study investigating memory consolidation during sleep using an EEG linear classifier (Support Vector Machine)
- Supervisors Prof. Penelope Lewis (traineeship) and Prof. Michela Sarlo (thesis)
- Co-tutor Dr. Nicola Cellini

Bachelor

- 2012-2013 **University of Padova, Department of General Psychology**
- Main activities Subjects recruitment, interviews and data analysis in a study about attentional bias in snakes phobics using a behavioral paradigm
- Supervisor Prof. Michela Sarlo

Publications

Tafuro, A., Ambrosini, E., Puccioni, O., and Vallesi, A. (2019), Brain oscillations in cognitive control: A cross-sectional study with a spatial Stroop task, *Neuropsychologia*, 133:107190

Conferences

- **Tafuro, A.**, Visalli, A., Sauseng, P., Vallesi, A., Ambrosini, E. (14-16 November 2019), *Neural and kinematic dynamics of proactive and reactive control in interference resistance*, Congresso Annuale Società Italiana di Psicofisiologia e Neuroscienze Cognitive (SIPF), Ferrara, Italy
- **Tafuro, A.**, Ambrosini, E., Puccioni, O., Vallesi, A. (21-26 January 2018), *Different ways to deal with interference: evidence from young and elderly population*, European Workshop on Cognitive Neuropsychology (EWCN), Brixen, Italy
- **Tafuro, A.**, Ambrosini, E., Puccioni, O., Vallesi, A. (16-18 November 2017), *Age-specific spectral correlates of interference resistance processes*, Congresso Annuale Società Italiana di Psicofisiologia e Neuroscienze Cognitive (SIPF), Roma, Italy
- Tsujimura, H., Kotz, S., **Tafuro, A.**, Lewis, P. (17-22 July 2016), *Sleep enhances overgeneralisation only when there are few competitor memories*, International Conference on Memory, Budapest, Hungary

Editorial Activity

Ad hoc reviewer: Human Brain Mapping

Public Outreach

28 Sep. 2018 Interactive Demonstration at *European Researchers' Night* (Padova, Italy)

Personal skills and competences

Languages

Italian Excellent

Mother tongue

English Fluent

Level C1, 7.5 overall IELTS band

Technical skills

Systems Windows, Linux (basic)

Text Editing Microsoft Office, L^AT_EX

Data analysis R, Matlab (Psychtoolbox, EEGLab, Brainstorm)

Image Editing Gimp

Research Methods

Kinematics: Mouse tracking (MouseTracker Software, Matlab)

EEG: Data collection (BrainVision Software) and co-registration with TMS and 2D mouse kinematic data;

ERP, spectral, time-frequency and functional connectivity analysis - cross-frequency/cross-channel coupling, phase-locking (Matlab, EEGLab);

Dipole and surface-based distributed source reconstruction of HD-EEG data (EEGLab, Brainstorm)

Neuronavigation: Brainsight

TMS: Basic data collection (Magstim)

Social and organizational skills

- Good teamwork
- Flexibility
- Fast learning
- Self-motivation
- Determination
- Good time management
- Planning and scheduling