Luca Turella

CURRICULUM VITAE

WORKING EXPERIENCE

2019 - Present	**Tenured Assistant Professor (Researcher type B)**, Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy.
2014 - 2019	**Assistant Professor (funded by FIRB 2013 grant)**, CIMeC, University of Trento, Italy.
2014 - Present	**PI of Motor Control Group**, CIMeC, University of Trento, Italy.
2012 - 2014	**Post-doc**, CIMeC, University of Trento, Italy.
2011 - 2012	**Post-doc,** Department of Robotics, Brain and Cognitive Sciences, Italian Institute of Technology (IIT), Italy.
2010 - 2011	**Post-doc,** Department of Biomedical Sciences, University of Ferrara, Italy.
2006	**Research Assistant,** Department of Psychology, University of Padova, Italy.

EDUCATION

2007 - 2010	**PhD student (funded by Fondazione Cariparo),** University of Padova, Italy.
2007 - 2008	**Visiting PhD Student,** Department of Neuroradiology, University of Tübingen, Germany.
2005	**MSc in Experimental Psychology,** Department of Psychology, University of Padova, Italy.
2003	**BA in Psychological Sciences,** Department of Psychology, University of Padova, Italy.

Group webpage: Link **Researchgate webpage:** Link

ORCID ID: 0000-0003-1096-2150 **Scopus ID:** 15520235500 **Researcher ID:** AAB-2327-2019

PERSONAL STATEMENT

Throughout my academic career, my core interest has been the understanding of **the functioning of the fronto-parietal "motor" system in healthy participants and in patients** (multiple sclerosis, stroke, brain tumour, Parkinson). During my PhD, I focused my interest on investigating the possible role of action representations in understanding other people's intentions. I realised that we know more about how our brain encodes other people's actions than about how we decide and choose our interactions with the environment. Therefore, understanding the neural basis of our own and others' action representations has been my research path as a postdoctoral researcher and as Principal Investigator (PI). I became a PI at CIMeC and started my "Motor Control" group in 2014, when I was awarded the FIRB 2013 grant. Moreover, I was the local coordinator of the research unit abased at the University of Trento within the "Perceptual Awareness" ERC Advanced Grant 2013 (PI: Carlo Marzi).

Two main ideas have guided my research experience to this point. I am convinced that cognition can be fully understood only by considering its aim, i.e. producing intelligent and adaptive behaviour. Moreover, the only way to understand the neural substrates of higher cognitive functions is through a multi-method approach (behaviour, EMG, kinematics, fMRI, MEG/EEG, neurostimulation) exploiting advanced analytical methods (MVPA, RSA, connectivity).

My scientific aim has been to obtain crucial insights (i) on the normal organization of the motor system, (ii) on its role in high order cognitive functions and (iii) on the reorganization mechanisms which may occur after brain damage, paving the way for new treatments of motor deficits, as a basis for the development of novel neuro-prosthetics and rehabilitation systems.

RESEARCH INTERESTS

Action, Perception, Motor control, Action Observation, Imagery, Motor Learning, Neuroimaging, Neurostimulation, Neuroplasticity, Neurophysiology, Brain Tumour, Parkinson, Physical Activity, Ageing.

BIBLIOMETRIC INDICES (August 2021)

Source: Google Scholar. Total citations: >1400. h-index: 16 (Link).
Source: Scopus. Total citations: >800. h-index: 14 (Link).

PUBLICATIONS (*Joint first authorship)

33)Charroud, C. & **Turella, L.** (2021). Subcortical grey matter changes associated with motor symptoms evaluated by the Unified Parkinson's Disease Rating Scale III Score: a longitudinal study in Parkinson's Disease. *Neuroimage Clinical.*

32)Ragni, F., Lingnau A., & **Turella, L.** (2021). Decoding category and familiarity information during visual imagery. *Neuroimage.*

31)Malfatti, G. & **Turella, L.** (2021). Neural encoding and functional interactions underlying pantomimed movements. *Brain Structure and Function.*

30)Dodich, A., Papagno, C., **Turella, L.**, Meli, C., Zappini, F., Narduzzi, P., Gober, A., Pierotti, E., & Falla, M. (2021). The role of social cognition abilities in Parkinson's Disease in the era of COVID-19 emergency: an exploratory study. *Frontiers in Psychology.*

29)Monaco, S., Malfatti, G., Cattaneo, L., Culham, J.C., & **Turella, L.** (2020). Decoding motor imagery and action planning in the early visual cortex: overlapping but distinct neural mechanisms. *Neuroimage.* https://doi.org/10.1016/j.neuroimage.2020.116981

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21)Rembado, I., Castagnola, E., **Turella, L.**, Ius, T., Budai, R., Ansaldo, A., Angotzi, G.N., de Bertoldi, F., Ricci, D., Skrap, M., & Fadiga, L. (2017). Independent component decomposition of human micro-ecog somatosensory evoked potentials. *International Journal of Neural Systems,* 27: 1650052. *http://dx.doi.org/10.1142/S0129065716500520*

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