

# CURRICULUM VITAE

## PERSONAL DETAILS

NAME, SURNAME AND TITLE	<b>Luca Ronconi, Ph.D.</b>
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DATE AND PLACE OF BIRTH	30/05/1986, Valdagno (VI), Italy
NATIONALITY	Italian
CURRENT WORK ADDRESS	Center for Mind/Brain Sciences (CIMEC) University of Trento Corso Bettini 31, 38068 Rovereto (TN), Italy

## IN BRIEF

POST-DOCS	2016–present: CIMEC - University of Trento  2014–2016: University of Padova
PH.D.	2011–2014: University of Padova
ALMA MATER	2005 – 2010: University of Padova
AREA OF EXPERTIZE	Cognitive Neuroscience and Psychology
MAIN RESEARCH INTERESTS	Neural Oscillations, Perception, Attention, Multisensory Integration, Consciousness, Autism Spectrum Disorders.
MAIN TECHNICAL EXPERTISE	EEG, MEG, tACS (tES), TMS, Psychophysics, Eye-tracking
GOOGLE SCHOLAR	<a href="https://scholar.google.it/citations?user=U-J8EhUAAA&amp;hl=it">https://scholar.google.it/citations?user=U-J8EhUAAA&amp;hl=it</a>
RESEARCH GATE	<a href="https://www.researchgate.net/profile/Luca_Ronconi">https://www.researchgate.net/profile/Luca_Ronconi</a>

## CURRENT POSITIONS

- **2016 (Mar) - present** Postdoctoral Fellow, Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy. ERC Starting Grant project: "*Construction of Perceptual Space-Time*" awarded to Prof. David Melcher.

## PREVIOUS ACADEMIC POSITIONS

- **2017 (Feb - Apr)** Visiting Scientist, Institut für Psychologie, Westfälische Wilhelm-Universität Münster, Münster, Germany (February 1<sup>st</sup> - April 30<sup>th</sup>). [Supervisor/P.I.: Prof. Niko Busch]
- **2014 (Mar) - 2016 (Feb)** Postdoctoral Fellow, Department of General Psychology, University of Padova, Italy. [Supervisor/P.I.: Prof. Andrea Facoetti]
- **2012 (Oct) - 2013 (Apr)** Visiting PhD student, Department of Psychology, University of Cambridge, Cambridge, UK. [Supervisor/P.I.: Dr. Dénes Szűcs]

## EDUCATION

- **2011 (Jan) - 2014 (Mar)** Ph.D. in Psychological Sciences, 'Clinical and Experimental Psychobiology' track, University of Padova, Italy. [Supervisor: Prof. Andrea Facoetti]
- **2008 - 2010** Master degree (110 *cum laude*/110) in Neuroscience and Neuropsychological Rehabilitation, University of Padova, Italy.
- **2005 - 2008**: Bachelor degree (110 *cum laude*/110) in Cognitive Psychology and Psychobiology, University of Padova, Italy.
- **2000 - 2005**: Scientific High School Diploma at "Liceo G.G. Trissino", Valdagno (VI), Italy.

## ACADEMIC TEACHING EXPERIENCE AND QUALIFICATIONS

- **2018 - 2024** Italian national habilitation as Associate Professor (*Abilitazione scientifica nazionale - Professore di seconda fascia*) for the following academic fields:
  - 11/E1 *Psicologia generale, psicobiologia e psicomетria* (General psychology and psychobiology)
  - 11/E2 *Psicologia dello sviluppo e dell'educazione* (Developmental and educational psychology)

- **2016 - 2017** Adjunct Lecturer for the MSc class of *Developmental and Aging Brain* (entirely in English), Department of General Psychology, University of Padova (Prof. Clara Casco).
- **2011 - 2016** Teaching assistant, Dept. of Psychology, University of Padova. Seminars for the bachelor and master classes in: (i) Psychobiology, (ii) Developmental Neuropsychology (Prof. Andrea Facoetti).

### **STUDENTS SUPERVISION**

- **2016 - Present** 5 Master Students, 2 Bachelor students, Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy
- **2014 - Present** 4 Postgraduate Students, IRCCS Eugenio Medea, Italy
- **2011 - 2016** 2 Postgraduate Students, 15 Master Students, 10 Bachelor students, Department of General Psychology, University of Padova, Italy

### **FELLOWSHIP AND AWARDS**

- **2018** Young investigator award ('Premio SIPF Junior'), Italian Society of Psychophysiology and Cognitive Neuroscience (SIPF). Best first-author article (Ronconi et al., 2017 PNAS) among young Italian researchers under 35.
- **2016** Post-doctoral fellowship (27.000 € for 12 months). Fondazione Umberto Veronesi. Section: Neuroscience. Declined in favor of the postdoctoral position at CIMeC.
- **2015** Best poster award (200 €). RAW - Rovereto Attention Workshop 2015.
- **2014** Junior Postdoctoral Fellowship (19.367 €) - University of Padova (PI: Andrea Facoetti; I was the recipient of the Fellowship)

### **REVIEWING ACTIVITIES**

- **2018 - present** Review Editor, *Frontiers in Psychology*, Editorial board of *Consciousness Research*

- **2017** Review panel member, European Conference on visual Perception (ECVP)
- **2012 - present** Ad hoc reviewer for the following journals: *Biological Psychiatry*, *Biological Psychology*, *BMC Neuroscience*, *Cerebral Cortex*, *Consciousness and Cognition*, *Frontiers in Psychology*, *Journal of Autism and Developmental Disorders*, *Journal of Cognitive Education and Psychology*, *Journal of Neuroscience*, *Neuroimage*, *Psychological Research*, *Scientific Reports*, *Social Cognitive and Affective Neuroscience*.

## SCIENTIFIC MEMBERSHIP

- **2012 - present** *Vision Science Society*

## INSTITUTIONAL RESPONSIBILITIES

- **2014 - 2016** Postdoctoral Representative on the Departmental Advisory Board, Department of General Psychology, University of Padova, Italy.

## ORGANIZATION OF SCIENTIFIC MEETINGS

- **2018** Chair and organizer (with Prof. D. Melcher) of the symposium: "*Rhythms for perception: how neural oscillations determine our perceptual interpretation*". European Conference on Visual Perception (ECVP) 2018, Trieste, Italy (30/08/2018).

## SELECTED INVITED TALKS

- **2018** Royal Holloway University of London, Department of Psychology (27-28/09/2018)
- **2018** King's College London, Institute of Psychiatry, Psychology and Neuroscience, UK (18/07/2018)
- **2017** Institut für Psychologie, Westfälische Wilhelm-Universität Münster, Münster, Germany (19/04/2017).
- **2015** Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany (10/11/2015).
- **2015** Center for Mind/Brain Sciences (CIMeC), University of Trento, (22/10/2015).
- **2014** Department of Psychology, University of Salzburg, Austria (08/05/2014).
- **2012** Department of Psychology, University of Cambridge, UK (23/10/2012).

## LANGUAGE SKILLS

- Italian (Mother tongue)
- English (Writing: excellent, Reading: excellent, Speaking: excellent)

## ADVANCED RESEARCH AND TECHNICAL SKILLS

- **Neuroimaging (MEG/EEG), neurostimulation (tES+EEG/TMS) and other skills:**
  - Magnetoencephalography (MEG):
    - ✓ Elekta Neuromag 306 channels
  - Electroencephalography (EEG):
    - ✓ EGI Geodesic (64/128 channels)
    - ✓ Neuroscan (64 channels)
    - ✓ BrainVision (64 channels)
    - ✓ Micromed (32 channels)
  - Transcranial electrical stimulation (tACS, tDCS, tRNS) and concurrent EEG:
    - ✓ StarStim (Neuroelectronics)
  - Transcranial magnetic stimulation (TMS):
    - ✓ Rapid2, Magstim Ltd.) + Brainsight neuronavigation software (Rogue Research Inc.)
  - Eye-tracking
    - ✓ Tobii or Applied Science Laboratory
- **Neuroscience- and psychology- related computer skills:**

Statistical computing (Jasp, R, Statistica, SPSS), Matlab, EEGLAB, CoSMo MVPA, Fieldtrip, Brainstorm, Psychtoolbox, E-Prime, Presentation.
- **General computer skills:**

Apple Mac OS, Microsoft Windows, Microsoft Office, Adobe Photoshop and Illustrator, GraphPad Prism.

## CLINICAL EXPERIENCE AND INTERNSHIPS

- **2011:** Postgraduate internship at the Clinical Neuropsychology Unit, Pediatric Division, University Hospital of Padova, Italy.
- **2009-2010:** Undergraduate internship at the Developmental Neuropsychology Unit of Research Hospital 'E. Medea', Bosisio Parini (LC), Italy.
- **2009-2010:** Volunteer frequentation of the Stroke Unit "Villa Beretta", Valduce Hospital, Costamasnaga (LC), Italy.
- **2007-2008:** Undergraduate internship at the Department of General Psychology, University of Padova.

## **MAJOR ONGOING COLLABORATIONS**

- David Melcher, University of Trento, Italy - Neural oscillations and temporal perception
- Niko Busch, University of Münster, Germany - Neural oscillations and temporal perception
- Daniel Baldauf, University of Trento, Italy - MEG studies of visual perception
- Rosilari Bellacosa Marotti, SISSA, Italy - Visual perception and consciousness
- Denes Szucs, University of Cambridge, UK - Neural oscillations and temporal attention
- Nick Oosterhof, University of Trento, Italy - MVPA methods for M/EEG data
- Luca Casartelli and Massimo Molteni, IRCCS Medea, Italy - Cognition and perception in autism
- Valentina Parma, SISSA, Italy - Biological motion in autism
- Filippo Arrigoni, IRCCS Medea, Italy - Concurrent EEG/fMRI in autism

## **ACADEMIC REFEREES**

- Prof. David Melcher, Center for Mind/Brain Sciences (CIMEC), University of Trento, Italy ([david.melcher@unitn.it](mailto:david.melcher@unitn.it))
- Prof. Niko Busch, Institut für Psychologie, Westfälische Wilhelm Universität Münster, Münster, Germany ([niko.busch@wwu.de](mailto:niko.busch@wwu.de))
- Prof. Andrea Facoetti, Department of General Psychology, University of Padova, Italy ([andreafaceoetti@unipd.it](mailto:andreafaceoetti@unipd.it))
- Dr. Denés Szűcs, Department of Psychology, University of Cambridge, Cambridge, United Kingdom ([ds377@cam.ac.uk](mailto:ds377@cam.ac.uk))

## PUBLICATIONS

As of October 2018, I have published 25 papers in international peer-reviewed journals, of which 17 as first author and 3 as last author. Among these, 11 papers have been published without my PhD supervisor. According to Google Scholar, so far (starting in 2012) my works have been cited 483 times, and I have an H-index of 11.

### PEER-REVIEWED JOURNAL PUBLICATIONS (INTERNATIONAL, \*=CORRESPONDING/CO-CORRESPONDING AUTHOR)

1. **Ronconi L**, Busch N, Melcher (2018). Alpha-band sensory entrainment alters the duration of temporal windows in visual perception. *Scientific Reports*, 8, 11810.
2. **Ronconi L\***, Gori S, Federici A, Devita M, Carna M, Sali ME, Molteni M, Casartelli L, Facoetti A (2018). Weak surround suppression of the attentional focus characterizes visual selection in the ventral stream in autism. *Neuroimage: Clinical*, 18, 912-922
3. **Ronconi L\***, Devita M, Molteni M, Gori S, Facoetti A (2018) When large becomes slow: zooming-out visual attention is associated to orienting deficits in autism. *Journal of Autism and Developmental Disorders* <https://doi.org/10.1007/s10803-018-3506-0>
4. **Ronconi L\***, Oosterhof N, Bonmassar C & Melcher D (2017) Multiple oscillatory rhythms determine the temporal organization of perception. *Proceedings of the National Academy of Sciences*, 114(51), 13435-13440.
5. Casartelli L, Federici A, Biffi E, Molteni M, **Ronconi L** (2017) Are we “motorically” wired to others? High-level motor computations and their role in autism. *Neuroscientist*, in press. <https://doi.org/10.1177/1073858417750466>
6. **Ronconi L\***, Melcher D (2017) The role of oscillatory phase in determining the temporal organization of perception: evidence from sensory entrainment. *Journal of Neuroscience*, 37(44), 10636 -10644.
7. **Ronconi L\***, Bellacosa Marotti R (2017). Awareness in the crowd: Beta power and alpha phase of prestimulus oscillations predict object discrimination in visual crowding. *Consciousness and Cognition* 54, 36-46. [Invited article for the Special Issue: *Time course of event-related potentials associated with conscious experience*]
8. Franceschini S, Trevisan P, **Ronconi L**, Bertoni S, Colmar S, Double K, Facoetti A, Gori S (2017). Action video games improve reading abilities and visual-to-auditory

attentional shifting in English-speaking children with dyslexia. *Scientific Reports*, 7, 5863.

9. Casartelli L, Federici A, Cesareo A, Biffi E, Valtorta G, Molteni M, **Ronconi L<sup>\*</sup>**, Borgatti R <sup>^</sup> (2017). The role of the cerebellum in high stages of motor planning hierarchy. *Journal of Neurophysiology*, 117(4), 1474-1482. <sup>^</sup>=authors with equal contribution
10. **Ronconi L<sup>\*</sup>**, Casartelli L, Carna S, Arrigoni F, Borgatti R (2017). When one is enough: impaired multisensory integration in cerebellar agenesis. *Cerebral Cortex* 27(3), 2041-2051.
11. Treccani B, **Ronconi L**, Umiltà CA (2017). Role of stimulus and response feature overlap in between-task logical recoding. *Psychological Research* 81, 157-167.
12. **Ronconi L<sup>\*</sup>**, Molteni M, Casartelli L (2016). Building blocks of others' understanding: A perspective shift in investigating social-communicative deficit in autism. *Frontiers in Human Neuroscience*, 10: 44.
13. **Ronconi L<sup>\*</sup>**, Bertoni S, Bellacosa Marotti R (2016). The neural origins of visual crowding as revealed by event-related potentials and oscillatory dynamics. *Cortex* 79, 87-98.
14. **Ronconi L<sup>\*</sup>**, Pincham HL, Cristoforetti G, Facoetti A, Szűcs D (2016). Shaping neural oscillations with auditory rhythmic stimulation improves the temporal allocation of attention. *NeuroReport* 27, 487-494.
15. **Ronconi L**, Pincham HL, Szűcs D, Facoetti A (2016). Inducing attention not to blink: auditory entrainment improves conscious visual processing. *Psychological Research* 80(5), 774-784.
16. Casartelli L<sup>^</sup>, Molteni M, **Ronconi L<sup>\*</sup>**(2016). So close yet so far: motor anomalies impacting on social functioning in autism spectrum disorder. *Neuroscience and Biobehavioural Reviews*, 63, 98-105. <sup>^</sup>=authors with equal contribution.
17. **Ronconi L**, Franchin L, Valenza E, Gori S, Facoetti A (2016). The attentional 'zoom-lens' in eight-month-old infants. *Developmental Science*, 19(1), 145-154.
18. Gori S, Seitz A, **Ronconi L**, Franceschini S, Facoetti A (2016). Multiple Causal Links Between Magnocellular-Dorsal Pathway Deficit and Developmental Dyslexia. *Cerebral Cortex*, 26, 4356-4369.
19. Franceschini S, Bertoni S, **Ronconi L**, Molteni M, Gori S, Facoetti A (2015). 'Shall We



Play a Game?': Improving Reading Through Action Video Games in Developmental Dyslexia. *Current Developmental Disorders Reports*, 2(4), 318-329.

20. Gori S, Mascheretti S, Giora E, **Ronconi L**, Ruffino M, Quadrelli E, Facoetti A, Marino C (2015). The DCDC2 intron 2 deletion impairs illusory motion perception unveiling the selective role of magnocellular-dorsal stream in reading (dis)ability. *Cerebral Cortex*, 25(6), 1685-95.
21. **Ronconi L**, Facoetti A, Bulf H, Franchin L, Bettoni R, Valenza, E (2014). Paternal autistic traits are predictive of infants visual attention. *Journal of Autism and Developmental Disorders*, 44(7), 1556-1564.
22. **Ronconi L**, Basso D, Gori S, Facoetti A (2014). TMS on Right Frontal Eye Fields Induces an Inflexible Focus of Attention. *Cerebral Cortex*, 24, 396-402.
23. **Ronconi L**, Gori S, Giora E, Ruffino M, Molteni M, Facoetti A (2013). Deeper attentional masking by lateral objects in children with autism. *Brain and Cognition*, 83, 213-218.
24. **Ronconi L**, Gori S, Ruffino M, Molteni M, Facoetti A, (2013). Zoom-out attentional impairment in children with autism spectrum disorder. *Cortex*, 49, 1025-1033.
25. **Ronconi L**, Gori S, Ruffino M, Franceschini S, Urbani B, Molteni M, Facoetti A (2012). Decreased Coherent Motion Discrimination in Autism Spectrum Disorder: The Role of Attentional Zoom-out Deficit. *Plos One*, 7, e49019.

### **CONFERENCE PROCEEDINGS (FIRST-AUTHORED ONLY)**

- Ronconi L, Oosterhof NN, Busch N., Bonmassar C, Baldauf D., Melcher D. Temporal windows in perception and their link with neural oscillations. European Conference on Visual Perception (ECVP), August 26-30, 2018. Trieste, Italy ([talk session](#)).
- Ronconi L, Oosterhof NN, Bonmassar C, Melcher D. Decoding integration and segregation over different time scales from the ongoing neural oscillations. European Conference on Visual Perception (ECVP), August 27-31, 2017. Berlin, Germany (poster presentation).
- Ronconi L, Melcher D. Alpha oscillation phase determines the timing of perception: evidence from sensory entrainment. Vision Sciences Society Annual Meeting, May 16-20, 2017. St. Pete Beach, Florida (poster presentation).

- Ronconi L, Pincham HL, Cristoforetti G, Facoetti A, Szucs D. Shaping pre-stimulus neural oscillations with auditory rhythmic stimulation improves the temporal allocation of attention. Rovereto Attention Workshop. October 5-8, 2015 (poster + talk as poster award winner).
- Ronconi L, Bertoni S, Bellacosa Marotti R. The neural origins of visual crowding as revealed by event-related potentials and high-frequency oscillatory dynamics. European Conference on Visual Perception, ECVP. August 23-27, 2015. Liverpool, UK (poster presentation).
- Ronconi L, Vignali L, Gori S, Mento G, Facoetti A. The neural dynamics of attentional zoom-lens as revealed by dense-array EEG. 9<sup>th</sup> FENS Forum of Neuroscience. July 5-9, 2014. Milan, Italy (poster presentation).
- Ronconi L, Gori S, Devita M, Molteni M, Facoetti A. The "Mexican hat" of the attentional focus in autism spectrum disorders. 14<sup>th</sup> Vision Sciences Society Annual Meeting, May 16-20, 2014. St. Pete Beach, Florida (poster presentation).
- Ronconi L, Gori S, Devita M, Molteni M, Facoetti A. Weak Suppression Surrounding the Focus of Attention in Autism: A Possible Explanation of Visual Objects Overload? X International Congress Autism-Europe. Talk session. September 26-28, 2013. Budapest, Hungary (talk session).
- Ronconi L, Facoetti A, Bulf H, Franchin L, Bettoni R, Valenza, E. Paternal autistic traits are predictive of infants visual attention. X International Congress Autism-Europe. Poster session. September 26-28, 2013, Budapest, Hungary (poster presentation).
- Ronconi L, Gori S, Varuzza C, Menghini D, Basso D, Vicari S, Facoetti A (2013) "Zoom-In" Attentional Impairment in Developmental Dyslexia and its Possible Neurobiological Underpinning. 3<sup>rd</sup> Oxford-Kobe Symposium, Poster Session, April 11-13, 2013, Oxford, UK (poster presentation).
- Ronconi L, Gori S, Giora E, Ruffino M., Facoetti A. Spatio-temporal dynamics of visual processing in autism revealed by Attentional Masking. *Perception 41* Supplement ECVP 2012, page 134. Alghero, Italy (poster presentation).
- Ronconi L, Basso D, Gori S, Facoetti A, (2012). TMS on the FEF area induces a 'narrow' focus of attention. 12<sup>th</sup> Vision Sciences Society Annual Meeting, May 11-16, 2012. Naples, Florida (poster presentation).
- Ronconi L, Gori S, Ruffino M, Facoetti A. Is poor coherent motion discrimination the consequence of magnocellular impairment in autism spectrum

disorders? *Perception* 40 ECVF 2011 Toulouse. Abstract Supplement, page 168 (poster presentation).

- Ronconi L, Gori S, Ruffino M, Facoetti A, (2011). The attentional focusing mechanism in autism spectrum disorders:evidence of a “zoom-out” impairment. Rovereto Attention Workshop. Poster Session. October 27-29, 2011 (poster presentation).
- Ronconi L, Ganesini, T, Ruffino M, Gori S, Facoetti A (2010). To induce autistic-like focused perception in typically developing adults interfering with the right hemisphere global processing. 'A Future For Autism' IX International Congress Autism-Europe. Poster session. October 8-10, 2010. Catania, Italy (poster presentation).

Rovereto, 10.10.2018