# Davide Bottari



# EDUCATION AND TRAINING

01/09/1996 - 05/02/2002

MASTER IN EXPERIMENTAL PSYCHOLOGY AND NEUROPSYCHOLOGY - University of Bologna

https://psicologia.unibo.it/it

01/11/2005 - 10/12/2008

PHD IN COGNITIVE NEUROSCIENCE AND EDUCATION - University of Trento

https://www.cogsci.unitn.it/

01/06/2007 - 31/05/2008

**TRAINING IN ELECTROPHYSIOLOGICAL MEASURES (VISITING POST-GRADUATE STUDENT, 1 YEAR) –** INSERM 821 Methodological Unit Lyon France (now Lyon Neuroscience Center)

https://www.crnl.fr/en

# LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	B2	B1	B1	B1	A1
SPANISH	B2	B1	В1	B1	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

# DIGITAL SKILLS

Matlab toolboxes for EEG analyses (fieldtrip, EEGlab, Brainstrorm) | Elan (software for electrophysiological data analysis) | SPSS | MATLAB

## WORK EXPERIENCE

01/02/2017 – CURRENT – Lucca, Italy
ASSISTANT PROFESSOR – IMT SCHOOL FOR ADVANCED STUDIES

# **RESEARCH ACTIVITIES**

Publication of several peer-reviewed articles (see publication list).

Establishment of new collaborations between IMT School and other institutions (e.g., Meyer Children Hospital in Florence, University of Hamburg Germany, University of Oldenburg Germany, University of Ulm Germany, University of

Louvaine Belgium, University of Trento, University of Milan Bicocca, University of Perugia, Burlo Garofalo Children Hospital in Trieste, The Laboratory for Visual Plasticity at Harward Medical School).

### SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2017 – present I am currently supervising 1 research collaborator (2 years contract, Assegno di Ricerca) funded by a PRIN 2017 (of which I am PI, Responsabile di Unità)

2017 – present I am currently supervising <u>7 Ph.D. students</u> of the Neuroscience track at IMT School for Advanced Studies Lucca, Italy.

#### **TEACHING ACTIVITIES**

2021-2022: Course in Psichology of Perception; Master interdisciplinare Universitario di I° livello "Scienze Uditive dell'Età Evolutiva" organized by Ospedale infantile Burlo Garofalo di Trieste and Perugia University 2017 – present Introduction to Psychophysics; Course for Ph.D. students at IMT School for advanced studies Lucca, Italy

2017 – present Neuroscience of Perception and Experience-Dependent Plasticity, Course for Ph.D. students at IMT School for advanced studies Lucca, Italy (compulsory).

2017 Methods in Electrophysiology course; Erasmus + Teaching Mobility program; at the University of Hamburg, Germany

# ORGANISATION OF SCIENTIFIC MEETINGS

2018 Main organizer of 'The Blind Brain Workshop', IMT School for Advanced Studies Lucca, Italy. International workshop concerning the sensory deprivation and restoration model, gathering about 120 attendees including most of the leading scientists in the field. Following the venue, a special issue on Neuroscience and Biobehavioral Reviews was organized (I was one of the guest editors)

2018 Symposium organizer and speaker at the SIPF (Italian Society of Psychophysiology and Cognitive Neuroscience). Title: "Temporary and permanent sensory deprivation and functional development"

### INSTITUTIONAL RESPONSIBILITIES

2021 - present Member of the Ph.D. in Artificial Intelligence at IMT School for Advanced Studies Lucca

2020 - present Academic Senate Member, IMT School for Advanced Studies Lucca

2018 - present Ph.D. selection committees and other selection (post-doc) committees

#### **FUNDS**

Bando Ateneo Covid 19 Università di Trento, 2020 (co-investigator; 60k) MIUR-PRIN Grant, Italian Government, 2017 (PI, "responsabile unità"; 135k) Teaching Erasmus + 2017 (EEG course at the Hamburg University)

04/11/2010 – 31/01/2017 – Hamburg, Germany POSTDOC – BIOLOGICAL PSYCHOLOGY AND NEUROPSYCHOLOGY (BPN), UNIVERSITY OF HAMBURG, GERMANY

### RESEARCH

I was hired by Prof. Brigitte Röder, within her ERC-Adv-Grant grant: "Critical Brain Changes". I was in charge of multiple research projects which aimed at uncovering "Critical Periods" for the functional development of the brain and in particular for the study of neural plasticity occurring in case of atypical sensory development (e.g. blindness, deafness, and sensory re-afferentation, i.e., in case of individuals who regained sight or hearing through surgeries or bionic implants as cochlear implants). Methodologically, I mainly conducted the research by using advanced electrophysiological measures (EEG; ERPs, Time-Frequency Decompositions, Source Modeling) and psychophysics. I was the person responsible for the establishment of 2 Cognitive Neuroscience labs (at the LV Prasad Eye Institute, Hyderabad India, in which we collected a unique cohort of patients who regained sight following congenital blindness tank to the removal of bilateral dense cataracts).

# ORGANISATION OF SCIENTIFIC MEETINGS

International workshop on Nystagmus and Eye Movements 23-25 November 2016 L.V. Prasad Eye Institute, Hyderabad India. Main organizer

## TEACHING

Co-supervision of 5 PhD Research Projects, at Biological Psychology and Neuropsychology, University of Hamburg; Formal Supervision of Bachelor (2) and Master thesis (1) at BPN, University of Hamburg

2010 – 2016 Each year a module of the course on introduction to Cognitive Neuroscience Course (Master) at the University of Hamburg, Germany

01/11/2008 – 31/10/2010 – Trento, Italy
POSTDOC – CIMEC AND DEPARTMENT OF COGNITIVE NEUROSCIENCE, UNIVERSITY OF TRENTO

Main project: Investigate neural plasticity of visual and auditory cortices in deaf individuals through EEG and fMRI methods. I received an Assegno di Ricerca (1 year), and 1 year of a postdoc contract (research collaborator).

#### **FUNDS**

MIUR-PRIN Grant, Italian Government, 2009 (co-investigator) PAT-CRS-Funds, University of Trento, 2008 (co-investigator) MIUR-PRIN Grant, Italian Government, 2007 (co-investigator)

#### TEACHING

Informal supervision of Bachelor and Master Thesis, CIMEC, University of Trento

# HONOURS AND AWARDS

01/01/2009

Best PhD Thesis University of Trento award - University of Trento

01/02/2009

Best PhD Thesis award in Cognitive Science - Italian association of PhD schools in Cognitive Sciences.

10/06/2007

PhD student award at International Multisensory Research Forum Nava, E., Bottari, D., Zampini, M., Pavani, F., 'Comparable visual temporal-order judgment abilities in profoundly deaf and normal-hearing individuals' – International Multisensory Research Forum

15/12/2007

Bottari D., Turatto M., Pavani F., 'Change Blindness in Profound deaf and Cochlear Implant patients', PhD award, Poster selected for oral presentation at the European workshop of Cognitive Neuroscience, Bressanone Italy – European workshop of Cognitive Neuroscience, Bressanone Italy

15/06/2006

Winner of the Young Researcher Award, Italian Association of Psychology - Italian Association of Psychology

## REVIEWING ACTIVITIES

CURRENT

**REVIEWING ACTIVITIES** 

2021 Grant application review for The University of Rochester, NY

2018 Grant application review for Moorfields Eye Charity Career Development Award (London)

2017 - present Editorial Board, Neural Plasticity Journal

2015 – present Editorial Board, Frontiers in Psychology

2008 – present Reviewer, for several peer-review journals: Current Biology, Neuroimage, Cortex, Journal of Neuroscience, Neuropsychologia, and many more.

# CONFERENCES AND SEMINARS

01/07/2016 - 15/07/2021

Conferences and Seminars (Last 5 Years)

· March 2021 Cognitive Neuroscience Society (CNS; online) Seminar to a Symposium

- June 2020 Helsinki (Sweden, postponed). Seminar to a Symposium at International Conference of Cognitive Neuroscience (ICON)
- June 2020 Ulm (Germany, postponed). Seminar to a Symposium at International Multisensory Research Forum (IMRF)
- March 2019 Louvain (Belgium). Invited Seminar. Universitè Catholique de Louvain

· May 2019 Torino (Italy). Invited Seminar. University of Turin

· Jan 2019 Abu Dhabi (Emirates). Invited Seminar. NYU Abu Dhabi

November 2018 Turin (Italy). Oral Presentation at the Italian Socienty of Psychophysiology, Symposium:

"Deprivazione sensoriale permanente o temporanea e sviluppo funzionale"

June 2018 Toronto (Canada). Oral presentation to Symposium "Recovery from sight"; International Multisensory Research Forum

March 2018 Genova IIT (Italy). Invited Seminar

· July 2016 Hyderabad (India) IERG Association for Research in Vision and Ophthalmology ARVO. Invited Seminar.

# NETWORKS AND MEMBERSHIPS

01/01/2015 - CURRENT MAJOR COLLABORATIONS

### **EXTERNAL COLLABORATIONS**

Francesco Pavani (https://webapps.unitn.it/du/it/Persona/PER0003828/Curriculum) Full Professor General Psychology at the CIMEC University of Trento, Italy. We collaborate as part of the Italian Network on Deafness (we have a joint PRIN of which he is the National Coordinator; we have a shared grant on COVD 19 funded by the University of Trento).

Brigitte Roeder (https://www.psy.uni-hamburg.de/en/arbeitsbereiche/biologische-psychologie-und-neuropsychologie/personen/roeder-brigitte.html) full professor, Head of BPN University of Hamburg. We collaborate on a number of

projects regarding sensory functional development, and neural network development in multiple models of atypical development (sight-recovery and Deafness in particular).

**Lotfi Merabet** (<a href="https://eye.hms.harvard.edu/lotfimerabet">https://eye.hms.harvard.edu/lotfimerabet</a>) Ass. Prof. of Ophthalmology, Harvard Med. School. We collaborate on projects concerning visual functions in cortical blindness patients

**Niko Troje** (https://www.biomotionlab.ca/niko-troje/) Full Professor. Centre for Vision Research, the Department of Biology and the Graduate Programs in Biology, Psychology and Electrical Engineering & Computer Science York University. We collaborate on projects concerning biological motion perception in the visual system.

**Bruno Rossion** (https://face-categorization-lab.webnode.com/people/bruno-rossion/) Full Professor. Université de Lorraine – CNRS Centre de Recherche en Automatique de Nancy (CRAN) UMR 7039; We collaborate on projects

concerning the use of EEG frequency tagging in atypical development

**Stefan Debener** (https://uol.de/neuropsychologie/team/prof-dr-stefan-debener) Full Professor of Neuropsychology, Dept. of Psychology, University of Oldenburg, Germany. We collaborate on projects regarding the neural tracking of continuous speech in atypical development. An IMT Ph.D. student I supervise (Evgenia Bednaya) has spent several months training in his lab in 2019-2020

Mark Ernst (https://www.uni-ulm.de/in/psy-acog/team/marc-ernst/) Full Professor Applied Cognitive Psychology. We collaborate on projects regarding the short-term plasticity of multisensory functions and for the study of multisensory functions in children. An IMT Ph.D. student I supervise (Alessandra Federici) has spent several months training in his lab in 2020