SIMONA MONACO – CURRICULUM VITAE

- **EDUCATION**

2009 PhD in Neurophysiology
Department of Human and General Physiology, University of Bologna, Italy
PhD supervisors: Claudio Galletti and Jody Culham

2004 MSc in Pharmacy
Department of Pharmacy, University of Bologna, Italy
Master's thesis supervisors: Rossella Breveglieri

- **CURRENT POSITION**

2020 – present Researcher (RTDA)
CIMeC – Center for Mind/Brain Sciences, University of Trento, Italy

- **PREVIOUS POSITIONS**

2018 – 2020 Post-doctoral fellow, CIMeC – Centre for Mind/Brain Sciences, University of Trento
2016 – 2018 Marie Curie fellow, CIMeC – Centre for Mind/Brain Sciences, University of Trento
2014 – 2016 Post-doctoral fellow, CIMeC – Centre for Mind/Brain Sciences, University of Trento
2010 – 2014 Post-doctoral fellow, Centre for Vision Research, York University, Toronto, Ontario
2009 – 2010 Post-doctoral fellow, Department of Psychology, University of Western Ontario
2005 – 2009 Visiting graduate scholar, Department of Psychology, University of Western Ontario

- **GRANTS AND AWARDS**

2023 – 2025 Ministry of University and Research, PRIN – 2022: Research Projects of Relevant National Interest. Project title: "Targeting attentional biases in depression: A longitudinal multimodal neuroimaging investigation". €198,464. Role: Principal Investigator at the University of Trento, Project coordinator: Sabrina Fagioli at the University of Rome 3.

2022 – 2025 Ministry of University and Research, Next generation EU programme under Piano Nazionale di Ripresa e Resilienza (PNRR). Project title: "PrefAcE, Predictions for Action Execution: the neural basis of movement intention", €293,451.37. Role: Principal Investigator.

2021 – 2022 Starting grant for young researchers, Internal funding from the University of Trento. Principal Investigator. € 5,200. Role: Principal Investigator.

2016 – 2018 Marie Sklodowska-Curie individual fellowship from the European Union's Horizon 2020 research and innovation programme. Grant agreement No 703597. Project acronym: BraIn Action. Principal Investigator. €168,277.20. Role: Principal Investigator.

2006 – 2008 Doctoral Scholarship, Italian Ministry of Education, University and Research. € 32,000

2014 – 2014 Travel Award to attend the Society for Neuroscience in Washington, United States, from the Southern Ontario Neuroscience Association, Canada. C$1,000

2007 – 2007 Marco Polo Travel Award for research internship at the University of Western Ontario from the University of Bologna, Italy. €1,400

2005 – 2005 Travel Award for research project at the University of Western Ontario from the University of Bologna, Italy. € 2,000

- **SUPERVISION AND CO-SUPERVISION OF STUDENTS (24)**

PhD students (6):

2021 – present Samantha Sartin, Doctoral Program in Cognitive and Brain Sciences, University of Trento, Italy

2021 – present Gaelle Nsamba Luabeya, Neuroscience Program, Center for Vision Research, York University, Toronto, Canada (co-supervised with Doug Crawford)

2017 – 2020 Martina Pirruccio, Neuroscience Program, Psychological and Psychiatric Sciences, and Movement Sciences, University of Verona, Italy (co-supervised with Luigi Cattaneo)

2014 – 2017 Bianca-Ruxandra Baltaretu, Neuroscience Program, Center for Vision Research, York University, Toronto, Canada (co-supervised with Doug Crawford)
2013 – 2015 David Cappadocia, Neuroscience Program, Center for Vision Research, York University, Toronto, Canada (co-supervised with Doug Crawford)
2011 – 2014 Ying Chen, Neuroscience Program, Center for Vision Research, York University, Toronto, Canada (co-supervised with Doug Crawford)

Master students (8):

2023 – 2024 Margherita Marchioro, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2022 – 2022 Federica Anzini, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2021 – 2022 Federica Danaj, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2020 – 2021 Samantha Sartin, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2017 – 2018 Jena Velji-Ibrahim, Master of Science in Kinesiology and Health Science, York University, Toronto, Canada (co-supervised with Doug Crawford)
2016 – 2017 Laura Pizzato, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2015 – 2015 Alessandro Zendron, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy (co-supervised with Luca Turella)
2013 – 2014 Bianca-Ruxandra Baltaretu, Master of Science in Kinesiology and Health Science, York University, Toronto, Canada (co-supervised with Doug Crawford)

Internship students (10):

2023 – 2023 Thomas Bresciani, Bachelor in Science and Techniques of Cognitive Psychology
2023 – 2023 Arefeh Lali Dehadhi, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2022 – 2023 Fabio Del Giudice, Master in Psychology, University of Turin, Italy
2022 – 2022 Lauren Gregoraci, Master in Cognitive Neuroscience, University of East Anglia, United Kingdom
2021 – 2022 Federica Danaj, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2020 – 2021 Ana Melishvili, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2017 – 2018 Giacomo Bornino, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2018 – 2018 Nicholas Menghi, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2018 – 2018 Alessia Santoni, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy
2015 – 2016 Jacopo Venturini, Master in Cognitive Science, Center for Mind/Brain Sciences, University of Trento, Italy (co-supervised with Luca Turella)

- **TEACHING ACTIVITIES**

2023, 2021 Advanced Topics in Motor Cognition, Invited lectures at CIMeC, University of Trento, Italy
2015 Biological Psychology, Invited lecture at Alpen-Adria-Universität, Klagenfurt, Austria
2015 Foundations of Cognitive Neuroscience, Invited lectures at CIMeC, University of Trento, Italy
2014 Introduction to fMRI data analyses, Hands-on methods course, York University, Toronto
2014 Visuospatial Memory and Goal Directed Action, Invited lecture at York University,

Toronto
2012 Advanced fMRI analyses, Hands-on methods course, York University, Toronto
2012 Neural Control of Movement, Invited lecture at York University, Toronto

- **ADDITIONAL QUALIFICATIONS**

2020-2029 National Scientific Qualification (Abilitazione Scientifica Nazionale) in Physiology, sector 05/D1, level II. Italian Ministry of Education, University and Research
2018-2028 National Scientific Qualification (Abilitazione Scientifica Nazionale) in Psychology, sector 11/E1, level II). Italian Ministry of Education, University and Research
2005 Certification for Professional Pharmacist, University of Urbino

- **ADDITIONAL TRAINING**

08/2012 Summer School in Computational Sensory-Motor Neuroscience (CoSMo 2012). Northwestern University, Chicago
09/2005 Teaching in a Canadian Classroom Program. University of Western Ontario, London
08/2005 Teaching Assistant Training Program. University of Western Ontario, London

- **PUBLICATIONS (25)**

Trainees are in italics.

1. **Monaco S**, *Menghi N*, Crawford JD. (2024). Action-Specific Feature Processing in Human Visual Cortex. **Neuropsychologia.** https://doi.org/10.1016/j.neuropsychologia.2023.108773.
2. Noviello S, Songhorabadi S, Deng Z, Zheng C, Chen J, Pisani A, Franchin E, Pierotti E, Tonolli E, **Monaco S**, Renoult L, Sperandio I. (2023). Temporal features of size constancy for perception and action in a real-world setting: A combined EEG-kinematics study. **Neuropsychologia.** https://doi.org/10.1016/j.neuropsychologia.2023.108746.
3. *Sartin S*, Ranzini M, Scarpazza C, **Monaco S**. (2023). Cortical areas involved in grasping and reaching actions with and without visual information: an ALE meta-analysis of neuroimaging studies. https://doi.org/10.1016/j.crneur.2022.100070. **Current Research in Neurobiology**.
4. *Velji-Ibrahim J*, Crawford JD, Cattaneo L, **Monaco S**. (2022). Action planning modulates the representation of object features in human fronto-parietal and occipital cortex. **European Journal of Neuroscience**. http://dx.doi.org/10.1111/ejn.15776.
5. **Monaco S**, Malfatti G, Cattaneo L, Culham JC, 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.
6. *Pirruccio M**, **Monaco S***, Della Libera C, Cattaneo L. (2020). Gaze direction influences grasping actions towards unseen, haptically explored, objects. **Scientific Reports**. *authors with equal contribution. https://www.nature.com/articles/s41598-020-72554-x. DOI: 10.1038/s41598-020-72554-x.
7. *Baltaretu BR*, **Monaco S**, *Velji-Ibrahim J*, Gaelle N Luabeya, Crawford JD. (2020). Parietal cortex integrates visual and oculomotor signals to update grasp plans. **Journal of Neuroscience**. DOI: https://doi.org/10.1523/JNEUROSCI.0300-20.2020. bioRxiv. DOI: 10.1101/758532.
8. **Monaco S**, Malfatti G, *Zendron A*, Pellencin E, Turella L. (2019). Predictive coding of action intentions in dorsal and ventral stream is based on visual anticipations, memory-based information and motor preparation. **Brain Structure and Function**. https://doi.org/10.1007/s00429-019-01970-1. bioRxiv. DOI: 10.1101/480590.
9. Arcaro M, Thaler L, Quinlan DJ, **Monaco S**, Khan S, Valyear KF, Goebel R, Dutton GN, Goodale MA, Kastner S, Culham JC. (2018). Psychophysical and neuroimaging responses to moving stimuli in a patient with the Riddoch phenomenon due to bilateral visual cortex lesions. **Neuropsychologia**. https://doi.org/10.1016/j.neuropsychologia.2018.05.008.
10. *Chen Y*, **Monaco S**, Crawford JD. (2018). Neural Substrates for Allocentric-to-Egocentric Conversion of Remembered Reach Targets in Humans. **European Journal of Neuroscience**. DOI: 10.1111/ejn.13885.

11. **Monaco S**, Gallivan JP, Figley, TD, Singhal A, Culham JC. (2017). Recruitment of foveal retinotopic cortex during haptic exploration of shapes and actions in the dark. **Journal of Neuroscience.** DOI: 10.1523/jneurosci.2428-16.2017.
12. Cavina-Pratesi C, Connolly JD, **Monaco S**, Figley TD, Milner AD, Schenk T, Culham JC. (2017). Human neuroimaging reveals the subcomponents of grasping, reaching and pointing actions. **Cortex**. DOI: 10.1016/j.cortex.2017.05.018.
13. Rossit S, Harvey M, Butler S, Szymanek L; Morand S, **Monaco S**, McIntosh R. (2017). Impaired peripheral reaching and on-line corrections in patient DF: optic ataxia with visual form agnosia. **Cortex**. DOI: 10.1016/j.cortex.2017.04.004.
14. *Cappadocia DC*, **Monaco S**, *Chen Y*, Blohm G, Crawford JD. (2016). Temporal evolution of target representation, movement direction planning, and reach execution in occipital-parietal-frontal cortex: an fMRI study. **Cerebral Cortex**. DOI: 10.1093/cercor/bhw304.
15. **Monaco S**, Buckingham G, Sperandio I, Crawford JD. (2016). Editorial: Perceiving and Acting in the real world: from neural activity to behavior. **Frontiers in Human Neuroscience**. DOI: 10.3389/fnhum.2016.00179.
16. Leoné F, **Monaco S**, Henriques YPD, Toni I, Medendorp PW. (2015). Flexible reference frames for grasp planning in human parieto-frontal cortex. **eNeuro**. DOI: 10.1523/eneuro.0008-15.2015.
17. **Monaco S**, Sedda A, Cavina-Pratesi C, Culham JC. (2014). Neural correlates of object size and object location during grasping actions. **European Journal of Neuroscience**. 41(4):454-65. DOI: 10.1111/ejn.12786.
18. *Chen Y*, **Monaco S**, Byrne P, Yan X, Henriques YPD, Crawford JD. (2014). Allocentric vs. egocentric representation of remembered reach targets in human cortex. **Journal of Neuroscience**. 34(37): 12515-12526. DOI: 10.1523/jneurosci.1445-14.2014.
19. **Monaco S**, *Chen Y*, Medendorp PW, Crawford JD, Fiehler K, Henriques YPD. (2013). Functional magnetic resonance imaging adaptation reveals the cortical networks for processing grasp-relevant object properties. **Cerebral Cortex**. 24(6): 2248-2263. DOI: 10.1093/cercor/bht006.
20. Singhal A*, **Monaco S***, Kaufman LD, Culham JC. (2013). Human fMRI reveals that delayed action re-recruits visual perception. **PLoS ONE**. 8(9): e73629. DOI:10.1371/journal.pone.0073629. *authors with equal contribution.
21. **Monaco S**, Cavina-Pratesi C, Sedda A, Fattori P, Galletti C, Culham JC. (2011). Functional magnetic resonance adaptation reveals the involvement of the dorsomedial stream in hand orientation for grasping. **Journal of Neurophysiology**. 106(5):2248-2263. DOI: 10.1152/jn.01069.2010.
22. Sedda A, **Monaco S**, Bottini G, Goodale MA. (2011). Integration of visual and auditory information for hand actions: preliminary evidence for the contribution of natural sounds to grasping. **Experimental Brain Research**. 209(3):365-74. DOI: 10.1007/s00221-011-2559-5.
23. Cavina-Pratesi C, **Monaco S**, Fattori P, Galletti C, McAdam, Quinlan D, Goodale MA, Culham JC. (2010). fMRI reveals the neural substrates of arm transport and grip formation in reach-to-grasp actions. **Journal of Neuroscience**. 30(31):10306-23. DOI: 10.1523/jneurosci.2023-10.2010.
24. **Monaco S**, Króliczak G, Quinlan D, Fattori P, Galletti C, Goodale MA, Culham JC. (2010). Contribution of visual and proprioceptive information to the precision of reaching movements. **Experimental Brain Research**. 202(1):15-32. DOI: 10.1007/s00221-009-2106-9.
25. Breveglieri R, Galletti C, **Monaco S**, Fattori P. (2008). Visual, somatosensory, and bimodal activities in the macaque parietal area PEc. **Cerebral Cortex**. 8(4):806-16. DOI: 10.1093/cercor/bhm127.

ARTICLES AVAILABLE IN BIORXIV (2)

26. *Baltaretu BR*, Dunkley BT, **Monaco S**, *Chen Y*, Crawford JD. (2018). Transsaccadic feature interactions in multiple reference frames: an fMRIa study. bioRxiv. DOI: 10.1101/413815.
27. *Cappadocia DC*, **Monaco S**, *Chen Y*, Crawford JD. (2018). Cortical mechanisms for reaches versus saccades: progression of effector-specificity through target memory to movement planning and execution. bioRxiv. DOI: 10.1101/415562.

- **INVITED TALKS (15)**

1. School of Psychology at the University of Plymouth (February 2021). The role of the early visual cortex in action and perception: beyond visual processing.
2. Department of Psychology, University of Regensburg, Germany (November 2019). The role of the early visual cortex in action: contribution of vision, imagery and touch.
3. Department of Neuroscience, University of Lethbridge, Alberta, Canada (April 2018). The role of the early visual cortex in action and perception: beyond visual processing.
4. Department of Psychology at Bilkent University, Ankara (March 2018). The role of the early visual cortex in action and perception: beyond visual processing.
5. Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona (November 2017). The role of the early visual cortex in action: contribution of vision, imagery and touch.
6. Satellite meeting at the Society for the Neural Control of Movement in Dublin, Ireland (May 2017). Neural coding of action: contribution of Vision and Touch.
7. Institute of Neuroscience and Psychology/School of Psychology, University of Glasgow (January 2017). The role of the primary visual cortex in action planning.
8. Brain and Mind Institute, University of Western Ontario, London, Ontario, Canada (November 2016). Neural coding of action planning and execution in the early visual cortex: contribution of Vision, Touch and Imagery.
9. Symposium of the Italian Physiological Society, Catania (September 2016). Recruitment of foveal retinotopic cortex in humans during haptic exploration of shapes and subsequent actions in the dark.
10. International School for Advanced Studies, University of Trieste (April 2016). Neural coding of action planning: contribution of Vision, Touch and Imagery.
11. Symposium of the Italian Physiological Society, Genoa (September 2015). Neural coding of action planning with and without visual feedback.
12. Department of Psychology, University of East Anglia, Norwich (June 2014). Involvement of ventral and dorsal stream areas in processing three-dimensional object properties for grasping.
13. Center for Mind/Brain Sciences, University of Trento (June 2014). Involvement of ventral and dorsal stream areas in processing three-dimensional object properties for grasping.
14. Department of Psychology, University of Toronto, Ontario, Canada (March 2014). Neural substrates involved in processing three-dimensional object properties for grasping.
15. Research Group Perception and Action, University of Giessen, Germany (May 2011). Neural substrates involved in processing three-dimensional object properties for grasping.

- **CONFERENCE PRESENTATIONS (66)**

TALKS (17)

1. **Monaco S**, Turella L, Culham J, Cattaneo L. (September 2023). Decoding action intention and haptic information in the early visual cortex: beyond visual processing. Talk at the Italian Society of Neuroscience, Turin, Italy.

2. **Monaco S**, Malfatti G, *Pizzato L*, Turella L. (September 2021). Decoding action intention with and without visual information from the activity pattern in the human early visual cortex. Talk at the Italian Society of Physiology, Milan, Italy.

3. **Monaco S**, Malfatti G, *Pizzato L*, Turella L. (January 2020). Decoding action intention with and without visual information from the activity pattern in the foveal cortex. Talk at the European Workshop on Cognitive Neuropsychology, Brixen, Italy.

4. **Monaco S**, Malfatti G, Culham JC, Cattaneo L, Turella L. (September 2019). Decoding real and imagined actions in the Early Visual Cortex. Talk at the 7th International Congress on Cognitive Neurodynamics, Alghero, Italy

5. **Monaco S** (May 2017). The role of the early visual cortex in action. Talk at the Symposium of the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2018;10(380). doi:10.1167/17.10.380 (Vision Sciences Society Annual Meeting Abstract).

6. *Baltaretu B*, **Monaco S**, *Velji-Ibrahim J*, Luabeya GN, Crawford JD (November 2017). Transsaccadic updating of object orientation for grasp planning: An fMRIa study. Talk at the annual meeting of the Society for Neuroscience, Washington, DC.
7. *Baltaretu B*, **Monaco S**, *Velji-Ibrahim J*, Luabeya GN, Crawford JD (May 2017). A neuroimaging study of the neural mechanisms involved in updating grasp plans. Talk at the the Canadian Action and Perception Satellite Meeting, Montreal, Quebec.
8. **Monaco S**, Pellencin E, Malfatti G, Turella L (May 2016). Neural coding of action planning: visual processing or visual memory? Talk at annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2016;16(12):23-23. doi:10.1167/16.12.23 (Vision Sciences Society Annual Meeting Abstract).
9. **Monaco S**, Pellencin E, Malfatti G, Turella L (January 2016). Neural coding of action planning with and without visual feedback. Talk at the annual meeting of the European Workshop of Neuropsychology, Brixen, Italy.
10. **Monaco S**, Pellencin E, Malfatti G, Turella L (November 2015). Neural coding of action planning with and without visual feedback. Talk at the annual meeting of the Italian Society of Psychophysiology, Lucca, Italy.
11. **Monaco S**, Pellencin E, Malfatti G, Turella L (October 2015). Neural coding of action planning with and without visual feedback. Talk at the annual meeting of the Society for Neuroscience, Chicago, Illinois.
12. **Monaco S**, Sedda A, Fattori P, Galletti C, Culham JC. (October 2009). Functional magnetic resonance adaptation (fMRA) reveals the involvement of the dorsomedial stream in wrist orientation for grasping. Talk at the annual meeting of the Society for Neuroscience, Chicago, Illinois.
13. Wood DK, **Monaco S**, McAdam TD, McLean DA, Dutton, GN, Culham JC, Goodale MA. (October 2009). Impaired selection of wrist posture in a patient with a parietal occipital lesion. Talk at the annual meeting of the Society for Neuroscience, Chicago, Illinois.
14. **Monaco S**, McAdam TD, McLean DA, Culham JC, Singhal A. (November 2008). fMRI reactivation in the Lateral Occipital Complex during action execution and action imagery toward visually and haptically explored objects. Talk at the annual meeting of the Society for Neuroscience, Washington, DC.
15. Culham JC, Wolf ME, Whitwell RL, Brown LE, Khan, SA, Cant JS, **Monaco S**, Dutton GN, Goodale MA. (June 2008). fMRI and behavioral testing reveal preserved motion processing and visuomotor control in a patient with extensive occipitotemporal lesions. Talk at the annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario, Canada.
16. Cavina-Pratesi C, **Monaco S**, McAdam TD, Milner T, Schenk T, Culham JC. (November 2007). Which aspects of hand-preshaping does human AIP compute during visually guided actions? Evidence from event-related fMRI. Talk at the annual meeting of the Society for Neuroscience, San Diego, California.
17. **Monaco S**, Fattori P, Galletti C, Goodale MA, Króliczak G, Quinlan D, Culham JC (May 2006). The contribution of visual and proprioceptive information to the precision of reaching movements. Talk at the annual meeting of the Vision Sciences Society, Sarasota, Florida. Journal of Vision. 2006; 6(6):397-397. doi: 10.1167/6.6.397 (Vision Sciences Society Annual Meeting Abstract).

POSTERS (49)

1. *Sartin S, Danaj F,* Del Giudice F, Sperandio I, **Monaco S** (May 2023). Cortical areas involved in imagery and haptic exploration of object size. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2023;23, 4991. https://doi.org/10.1167/jov.23.9.4991 (Vision Sciences Society Annual Meeting Abstract).
2. *Sartin S, Danaj F,* Del Giudice F, Sperandio I, Chen J, **Monaco S** (May 2023). Haptic size decoding in the early visual cortex. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
3. *Sartin S, Danaj F, Del Giudice F,* Sperandio I, **Monaco S** (September 2022). Human brain areas involved in imagined and haptically explored objects. Poster presented at the Minerva-Gentner Symposium on Perception, recognition and control of goal-directed actions: from cognitive to neural representations, Regensburg, Germany.

4. *Del Giudice F*, Dal Monte D, Caleca L, *Danaj F, Sartin S*, Sperandio I, **Monaco S** (September 2022). Behavioural relevance of haptic processing of object size in the primary visual cortex. Poster presented at the 8th European Student Conference on Behaviour & Cognition, Rovereto, Italy.
5. *Sartin S***,** Dal Monte D, *Del Giudice F*, Caleca L, *Danaj F*, , Sperandio I, **Monaco S** (August 2022). Behavioural relevance of haptic processing of object size in the primary visual cortex. Abstract accepted for poster presentation at the European Conference on Visual Perception, Nijmegen, The Netherlands.
6. **Monaco S**, Malfatti G, *Pizzato L*, Turella L (January 2020). Decoding action intention with and without visual information from the activity pattern in the foveal cortex. Poster presented at the European Workshop on Cognitive Neuropsychology, Brixen, Italy.
7. **Monaco S**, Malfatti G, Culham JC, Cattaneo L, Turella L. (November 2019). Decoding reveals overlapping but not shared contents of action planning and motor imagery in the early visual cortex. Poster presented at the Italian Society of Psychophysiology and Cognitive Neuroscience, Ferrara, Italy.
8. **Monaco S**, Malfatti G, Culham JC, Cattaneo L, Turella L. (October 2019). Overlapping but not shared neural representation for planning and imagining hand movements in the Early Visual Cortex. Poster presented at the Rovereto Attention Workshop, Rovereto, Italy.
9. *Pirruccio M*, Cattaneo L, Della Libera C, **Monaco S**. Gaze direction modulates hand shaping during grasping actions towards haptically explored objects (November 2019). Poster presented at the Italian Society of Psychophysiology and Cognitive Neuroscience, Ferrara, Italy.
10. *Pirruccio M*, Cattaneo L, Della Libera C, **Monaco S**. Evidence for foveal haptic representation of objects in the absence of vision (September 2019). Poster presented at the meeting of the European Society for Cognitive Psychology, Tenerife, Spain.
11. Turella L, Malfatti G, **Monaco S**, Culham JC, Cattaneo L. (September 2019). Decoding Modality-invariant Spatial Targets from Planning-related Activity in Early Visual Areas Poster presented at the annual meeting of the Federation of European Physiological Societies, Bologna, Italy.
12. Turella L, Malfatti G, **Monaco S**, Culham JC, Cattaneo L. (June 2019). Modality-invariant Representation of Spatial Targets Within V1 during Action Planning. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Rome, Italy.
13. *Velji-Ibrahim J*, Crawford JD, Cattaneo L, **Monaco S**. (May 2018). fMRI reveals that during action planning the activity pattern in early visual areas is modulated in an action-dependent manner. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
14. *Velji-Ibrahim J*, Crawford JD, **Monaco S**. (May 2018). Beyond sensory processing: Human neuroimaging shows task-dependent functional connectivity between V1 and somatomotor areas during action planning. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2018;18(10):70-70. doi:10.1167/18.10.70 (Vision Sciences Society Annual Meeting Abstract).
15. **Monaco S**, Malfatti G, Pizzato L, Cattaneo L, Turella L. (May 2018). Decoding action intention from the activity pattern in the Foveal Cortex. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2018;18(10):72-72. doi:10.1167/18.10.72 (Vision Sciences Society Annual Meeting Abstract).
16. **Monaco S**, Malfatti G, Culham JC, Cattaneo L, Turella L. (May 2017). Decoding real and imagined actions: overlapping but distinct neural representations for planning vs. imagining hand movements. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2018;17(10):458-458. doi:10.1167/17.10.458 (Vision Sciences Society Annual Meeting Abstract).
17. *Baltaretu B*, **Monaco S**, *Velji-Ibrahim J*, Luabeya GN, Crawford JD (May 2018). Cortical mechanisms for updating grasp orientation during saccades: An fMRI study. Poster presented at the Canadian Action and Perception Network, Vancouver, BC.
18. *Baltaretu B*, **Monaco S**, *Velji-Ibrahim J*, Luabeya GN, Crawford JD (July 2017). Neuroimaging study of cortical correlates of grasp plan updating during saccades. Poster presented at the Gordon Research Conferences: Eye Movements, Lewiston, ME.
19. *Baltaretu B*, **Monaco S**, *Velji-Ibrahim J*, Luabeya GN, Crawford JD (July 2017). Transsaccadic integration of object orientation for grasp planning: an fMRIa study. Poster presented at the Centre for Vision Research Conference, Toronto, Otario.

20. *Baltaretu B*, **Monaco S**, Le A, *Velji-Ibrahim J*, Luabeya G, Crawford JC. (May 2017). Neural mechanisms for updating grasp plans: An fMRI study. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete Beach, Florida. Journal of Vision. 2018;17(10):475-475. doi:10.1167/17.10.457 (Vision Sciences Society Annual Meeting Abstract).
21. **Monaco S**, Malfatti G, Pizzato L, Cattaneo L, Turella L. (May 2017). The role of the early visual cortex in action planning with and without visual information. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
22. **Monaco S,** Menghi N, *Chen Y*, Crawford JD (May 2017). Increased functional connectivity between the early visual cortex and sensory-motor areas when planning an action in the dark. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
23. **Monaco S**, Malfatti G, Culham JC, Turella L, Cattaneo L. (November 2016). Human neuroimaging suggests overlapping but distinct representations for planning vs. imagining hand actions. Poster presented at the annual meeting of the Society for Neuroscience, San Diego, California.
24. **Monaco S**, Malfatti G, Cattaneo L, Culham JC, Turella L (May 2016). Human neuroimaging suggests overlapping but distinct representations for planning vs. imagining hand actions. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
25. **Monaco S**, Pellencin E, Malfatti G, Turella L (January 2016). Neural coding of action planning with and without visual feedback. Poster presented at the annual meeting of the European Workshop of Neuropsychology, Brixen, Italy.
26. Malfatti G, **Monaco S**, Barchiesi G, Cattaneo L, Turella L (May 2016). Do dorsolateral and dorsomedial pathways interact? Investigating parieto-frontal connectivity during a prehension task: a TMS-fMRI study. Poster presented at annual meeting of the Vision Sciences Society, St. Pete Beach, Florida.
27. Malfatti G, **Monaco S**, Barchiesi G, Cattaneo L, Turella L (May 2016) Understanding the interaction between dorsomedial and dorsolateral pathways during action planning: a TMS-fMRI approach. Poster presented at the annual meeting of Concepts, Actions and Objects (CAOs), Rovereto, Italy.
28. Malfatti G, **Monaco S**, Barchiesi G, Cattaneo L, Turella L (November 2015). Causal modulation of the neural interactions during the planning phase of prehension movement: a TMS-fMRI approach. Poster presented at the annual meeting of the Italian Society of Psychophysiology, Lucca, Italy.
29. **Monaco S**, Crawford JD (May 2015). Human cortical activity for visual processing is modulated by cued actions. Poster presented at the annual meeting of the Vision Science Society, St. Pete Beach, Florida. Journal of Vision. 2015; 15(12):1144-1144. doi: 10.1167/15.12.1144. (Vision Sciences Society Annual Meeting Abstract).
30. **Monaco S**, Pellencin E, Malfatti G, Turella L (May 2015). Neural processing of object representation for action planning. Poster presented at the annual meeting of Concepts, Actions and Objects in Rovereto, Italy.
31. *Baltaretu BT*, Dunkley B, **Monaco S**, *Chen Y*, Crawford JD. Space-fixed, retina-fixed, and frame-independent mechanisms of trans-saccadic feature integration: repetition suppression and enhancement in an fMRIa paradigm. (May 2015). Poster presented at the annual meeting of the Vision Science Society, St. Pete Beach, Florida.
32. *Baltaretu BT*, Dunkley B, **Monaco S**, Crawford JD. Functional MRI adaptation reveals the cortical correlates of space-fixed, retina-fixed and frame-independent trans-saccadic feature integration. (March 2015). Poster presented at the annual meeting of Brain and Aging, Toronto.
33. **Monaco S**, *Chen Y*, Crawford JD. Cortical substrates for the integration of object properties and intended actions. (November 2014). Poster presented at the annual meeting of the the Society for Neuroscience, Washington, DC.
34. *Cappadocia D*, **Monaco S**, *Chen Y*, Crawford JD. Directionally selective cortical mechanisms for reaching to a remembered visual location during target memory, motor planning, and motor execution periods. (November 2014). Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
35. *Baltaretu BT*, Dunkley B, **Monaco S**, Crawford JD. Spatiotopic vs. retinotopic mechanisms of trans-saccadic feature integration: an fMRIa paradigm. (November 2014). Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.

36. **Monaco S**, *Chen Y*, AlOmawi N, Crawford JD. Neural substrates involved in the integration of object properties and intended actions. (June 2014). Poster presented at the annual meeting of the Organization for Human Brain Mapping, Hamburg, Germany.
37. *Chen Y*, **Monaco S**, Byrne P, Yan X, Henriques YPD, Crawford JD. Allocentric vs. Egocentric Representation of Remembered Reach Targets in Human Cortex. (June 2014). Poster presented at the annual meeting of the Organization for Human Brain Mapping, Hamburg, Germany.
38. **Monaco S**, *Chen Y*, AlOmawi N, Crawford JD. Neural substrates involved in the integration of object properties and intended actions. (May 2014). Poster presented at the Canadian Association for Neuroscience Meeting, Montreal, Canada.
39. *Chen Y*, **Monaco S**, Byrne P, Yan X, Henriques YPD, Crawford JD. Allocentric vs. Egocentric Representation of Remembered Reach Targets in Human Cortex. (May 2014). Poster presented at the Canadian Association for Neuroscience Meeting, Montreal, Canada.
40. *Cappadocia D*, **Monaco S**, *Chen Y*, Crawford JD. Cortical mechanisms for reaching to a remembered visual location during target memory and motor planning periods: an fMRI study. (May 2014). Poster presented at the Canadian Association for Neuroscience Meeting, Montreal, Canada
41. *Baltaretu BT*, Dunkley B, **Monaco S**, Crawford JD. Trans-saccadic integration of object orientation in a retinotopic vs. spatiotopic reference frame in an fMRI paradigm. (May 2014). Poster presented at the Canadian Association for Neuroscience Meeting, Montreal, Canada.
42. AlOmawi N, Dessing JC, **Monaco S**, Yan X, Crawford JD. Influence of Visual Feedback on Gaze-Dependent and Location-Dependent Errors in Grasping movements. (May 2014). Poster presented at the Canadian Association for Neuroscience Meeting, Montreal, Canada.
43. **Monaco S**, Kamran-Disfani R, Fiehler K, Henriques DYP. Decoding grasp-relevant dimension of 3D objects in the Lateral Occipital Complex in grasping and viewing tasks. (November 2013). Poster presented at the annual meeting of the Society for Neuroscience, San Diego, California.
44. **Monaco S**, Leoné F, Bunchholz VN, Toni I, Fiehler K, Henriques YPD, Medendorp, P.W. Reference frames for grasping movements: an fMRI repetition suppression study. (October 2012). Poster presented at the annual meeting of the Society for Neuroscience, New Orleans, Louisiana.
45. *Chen Y*, **Monaco S**, Byrne P, Yan X, Henriques YPD, Crawford JD. Cortical mechanisms for egocentric and allocentric encoding of remembered visual target locations for reach. (October 2012). Poster presented at the annual meeting of the Society for Neuroscience, New Orleans, Louisiana.
46. **Monaco S**, *Chen Y*, Crawford JD, Medendorp PW, Fiehler K, Henriques YPD. Distinct neural substrates for processing size and graspable dimension of 3D objects in humans. (November 2011). Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
47. **Monaco S**, Quinlan D, Fattori P, Galletti C, Goodale MA, Culham JC. How do vision and proprioception contribute to the precision of reaching? (June 2008). Poster presented at the annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Sciences.
48. **Monaco S**, Quinlan D, Fattori P, Galletti C, Goodale MA, Culham JC. Visual and proprioceptive guidance of reaching movements (November 2007). Poster presented at the annual meeting of the Society for Neuroscience, San Diego.
49. **Monaco S**, Króliczak, Quinlan D, Fattori P, Galletti C, Goodale MA, Culham JC. Proprioceptive information improves the accuracy of reaching when vision is limited (June 2005). Poster presented at the annual meeting of the International Multisensory Research Forum, Rovereto, Italy.

- **ORGANISATION OF SCIENTIFIC MEETINGS**

2017 Principal organizer of a scientific symposium at the Vision Sciences Society in St. Pete Beach, Florida, United States. (19 May 2017). Title: "The Brain Correlates of Perception and Action: from Neural Activity to Behavior" (~500 attendees)

2015 – 2016 Proposed, organized, hosted and coordinated internal seminars at CIMeC (~30 attendees) with invited speakers from international universities: Swinburne University of Technology (Melbourne, AU), Bangor University (UK), University of Lethbridge (Alberta, CA), Radboud University (Nijmegen, NL), University of East Anglia (Norwich, UK), University of Toronto (Ontario, CA), University of Glasgow (UK)

- **REVIEWING ACTIVITIES**

GRANTS AND FELLOWSHIPS:

2022 External reviewer for one grant application to the Natural Sciences and Engineering Research Council of Canada (NSERC)
2021 External reviewer for one grant application to the National Science Foundation (NSF)
2021 External reviewer for one grant application to the French National Research Agency (Agence Nationale de la Recerche, ANR)
2019 Expert evaluator for Marie Sklodowska-Curie individual fellowship proposals, European Commission (Research Executive Agency), Horizon 2020 framework

JOURNAL ARTICLES:

2009 – present Ad hoc invited reviewer for International scientific journals:
Behavioural Brain Research, Brain and Behavior, Brain and Cognition, Brain Structure and Function, Brain Topography, Cerebral Cortex, Cortex, Experimental Brain Research, European Journal of Neuroscience, Frontiers Systems Neuroscience, Human Brain Mapping, International Journal of Physical Sciences, Journal of Cognitive Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of the American Aging Association, MethodX, NeuroImage, Neuropsychologia, Neuroscience, Proceedings of the National Academy of Sciences, Oxford Research Encyclopedia of Neuroscience, Scientific Reports

- **PhD THESIS EXTERNAL EXAMINER**

2022 Federica Bencivenga, La Sapienza University of Rome, Italy
2022 Rosa Bauernfeind, La Trobe University, Melbourne, Australia
2021 Christine Kithu, La Trobe University, Melbourne, Australia
2021 Lara Coelho, University of Lethbridge, Alberta, Canada

- **EDITORIAL WORK**

2013 – 2016 Guest Associate Editor for Frontiers in Human Neuroscience. Research Topic: "Perceiving and Acting in the real world: from neural activity to behavior"

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2023 Società Italiana di Neuroscienze
2022 Italian Association for Cognitive Sciences
2016 – present Italian Physiological Society
2005, 2015 – 2018, 2023 Vision Sciences Society
2008 – 2016 Society for Neuroscience
2015, 2019 Italian Society of Psychophysiology
2012 – 2014 Canadian Neuroinformatics and Computational Neuroscience
2013 – 2014 Canadian Association for Neuroscience
2011 College of Pharmacists of Bologna

- **COMMITTEES**

Evaluation committee for Master's students' applications for admission to the Bernardo Clesio College at the University of Trento

- **OUTREACH**

2022, 2023 Organization of a series of neuroscientific seminars for the event CIMeC città in Rovereto
2021 Interview for the podcast "Allievi del Collegio Bernardo Clesio" (October 2021)
2021 Seminar at Collegio Bernardo Clesio in Trento: "Possiamo decodificare le intenzioni delle

azioni?" (October 2021)

2019 Science laboratories "Come si diventa scienziati?" and "Quanti cervelli abbiamo?" with high-school students for the public-engagement event "Chiamata alle arti e alle scienze" in Rovereto. (December 2019).

2019 Public-engagement event "Il cervello e il tempo" within Focus LIVE in Trento (October 2019)

2018 Science laboratory "Quanti cervelli abbiamo?" with high-school students for the public-engagement event "Chiamata alle arti e alle scienze" in Rovereto. (November 2018)

2018 Presentation of Marie-Curie European project at the informative session "Marie Skłodowska-Curie individual fellowship training days" at the University of Trento (June 2018)

2018 Presentation of Marie-Curie European project to high school students at Liceo delle Scienze Umane Fabio Filzi in Rovereto (January 2018)

2017 Presentation of the Marie-Curie European project to the general public at the event "Researchers' night" in Trento (September 2017)

2017 Presentation of the Marie-Curie European project to the general public at the event "Siamo Europa" in Trento (May 2017)

- **MAJOR COLLABORATIONS**

Doug Crawford, Centre for Vision Research, York University, Canada

Sabrina Fagioli, Department of Education Sciences, Università degli Studi Roma 3

Irene Sperandio, Department of Psychology and Cognitive Science, University of Trento, Rovereto (TN), Italy

- **ADDITIONAL INFORMATION**

Language: Italian (First language) and English (Proficient: C2 level)