

Curriculum Vitae

Moritz Wurm

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Current post Center for Mind/Brain Sciences - CIMEC
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Full name Moritz Franz Nikolaus Wurm
Date and place of birth 11/11/1981; Cologne, Germany

Academic Posts

10/2022 – Assistant Professor (RTD-B), CIMEC, University of Trento, Italy
04/2019 – 05/2022 Assistant Professor (RTD-A), CIMEC, University of Trento, Italy
04/2017 – 03/2019 Postdoctoral Research Fellow, CIMEC, University of Trento, Italy (Faculty Advisor: Alfonso Caramazza)
10/2015 – 03/2017 Postdoctoral Research Fellow (awarded by the German Research Foundation), Department of Psychology, Harvard University, Cambridge, USA and CIMEC, University of Trento, Italy (dual affiliation; Faculty Advisor: Alfonso Caramazza)
12/2011 – 09/2015 Postdoctoral Research Fellow, CIMEC, University of Trento, Italy (Faculty Advisor: Angelika Lingnau)
04/2008 – 11/2011 Ph.D. Student, Max Planck Institute for Neurological Research, Cologne, Germany (Faculty Advisor: Ricarda I. Schubotz)
01/2007 – 10/2007 M.Sc. Student (Diplom), Department of Evolutionary Developmental Biology, University of Cologne, Germany (Faculty Advisor: Diethard Tautz)
05/2006 – 04/2008 Research Assistant, Department of Developmental Genetics, University of Cologne, Germany (Faculty Advisor: Maria Leptin)
01/2004 – 12/2004 Teaching Assistant, Faculty of Biology, University of Cologne, Germany
07/2003 – 12/2003 Research Assistant, Department of Botany, University of Cologne, Germany (Faculty Advisor: Michael Melkonian)

Education

11/2011 Ph.D. in Psychology (*Doctor rerum naturalium*), Max Planck Institute for Neurological Research, Cologne; Department of Psychology, University of Münster, Germany. Thesis title: "Contextual modulation of action perception" (Advisor: Ricarda I. Schubotz)

10/2007

M.Sc. in Biology, Department of Evolutionary Developmental Biology, Cologne, Germany. Thesis title: "The role of the polycistronic gene *milles-pattes* in *Drosophila melanogaster*" (Advisor: Diethard Tautz)

Peer-reviewed Articles

- [34] Karakose-Akbıyık. S., Sussman, O., **Wurm, M. F.**, Caramazza A. (2023). The role of agentive and physical forces in the neural representation of motion events. *Journal of Neuroscience*.
- [33] de Vries, I.E.J., **Wurm, M. F.** (2023). Predictive neural representations of naturalistic dynamic input. *Nat Commun.* 14, 3858.
- [32] Karakose-Akbıyık. S., Caramazza A., & **Wurm, M. F.** (2023). A shared neural code for the physics of actions and object events. *Nat Commun.* 14, 3316.
- [31] Siestrup S., Jainta,B., El-Sourani, A., Trempler, I., **Wurm, M. F.**, Wolf, O. T., Cheng, S., Schubotz, R. I. (2022). What happened when? Cerebral processing of modified structure and content in episodic cueing. *J Cogn Neurosci.* 34 (7), 1287-1305.
- [30] Jainta,B., Siestrup S., El-Sourani, A., Trempler, I., **Wurm, M. F.**, Werning, M., Cheng, S., Schubotz, R. I. (2022). Seeing What I Did (Not): Cerebral and Behavioral Effects of Agency and Perspective on Episodic Memory Re-activation. *Front Behav Neurosci.* 7;15:793115.
- [29] **Wurm, M. F.**, Caramazza, A. (2022). Two "what" pathways for action and object recognition. *Trends in Cognitive Sciences*, 26, 2.
- [28] Pomp, J., Heims, N., Trempler, I., Kulvicius, T., Tamosiunaite, M., Mecklenbrauck, F., **Wurm, M. F.**, Wörgötter, F., Schubotz, R.I. (2021). Touching events predict human action segmentation in brain and behavior. *NeuroImage*, 243, 118534.
- [27] **Wurm, M. F.**, Tagliabue, C. F., Mazza, V. (2021). Decoding location-specific and location-invariant stages of numerosity processing in subitizing. *European Journal of Neuroscience*, 54(3), 4971-4984.
- [26] Bergström, F., **Wurm, M. F.**, Valério, D., Lingnau, A., Almeida, J. (2021). Tool-hand and viewpoint-invariant grasp-type information in parietal and lateral occipitotemporal cortex. *Cortex*, 139, 152-165.
- [25] Kluger, D. S., Broers, N., Roehe, M. A., **Wurm, M. F.**, Busch, N. A., Schubotz, R. I. (2020). Exploitation of local and global information in predictive processing. *PLoS One*, 15(4):e0231021.
- [24] El-Sourani, N., Trempler, I., **Wurm, M. F.**, Fink, G. R., Schubotz, R. I. (2020). Predictive impact of contextual objects during action observation: evidence from fMRI. *J Cogn Neurosci.* 32(2), 326-337.
- [23] Tucciarelli, R., **Wurm, M. F.**, E Baccolo, E., Lingnau, A. (2019). The representational space of observed actions. *eLife*, 8:e47686.
- [22] **Wurm, M. F.**, Caramazza, A. (2019). Lateral occipitotemporal cortex encodes perceptual components of social actions rather than abstract representations of sociality. *NeuroImage*, 202, 116153.
- [21] **Wurm, M. F.***, Porter, K. B.*, Caramazza, A. (2019). Individuation of parts of a single object and multiple distinct objects relies on a common neural mechanism in inferior intraparietal sulcus. *Cortex*, 121, 1-15. *equal contribution.
- [20] **Wurm, M. F.**, Caramazza, A. (2019). Distinct roles of temporal and frontoparietal regions in representing actions across vision and language. *Nat Commun.* 10, 289.
- [19] Vannuscorps G.*, **Wurm, M. F.***, Striem-Amit, E., Caramazza A. (2018). Large-scale organization of the hand action observation network in individuals born without hands. *Cereb Cortex.* 29(8), 3434–3444. *equal contribution.
- [18] El-Sourani, N., **Wurm, M. F.**, Trempler, I. C., Fink, G. R., Schubotz, R. I. (2018). Making sense of objects lying around: How contextual objects shape brain activity during action observation. *NeuroImage.* 167, 429-437.
- [17] **Wurm, M. F.**, Schubotz, R. I. (2018). The role of the temporoparietal junction (TPJ) in action observation: Agent detection rather than visuospatial transformation. *NeuroImage*, 165, 48-55.
- [16] Papeo L., **Wurm M. F.**, Oosterhof N. N., Caramazza A. (2017). The neural representation of humans versus nonhuman bipeds and quadrupeds. *Sci Reports.* 7(1), 14040.

- [15] **Wurm, M. F.**, Artemenko, C., Giuliani, D., Schubotz, R. I. (2017). Action at its place: Contextual settings enhance action recognition in 4-8 year old children. *Developmental Psychology*. 53(4), 662-670.
- [14] **Wurm, M. F.**, Caramazza, A., Lingnau, A. (2017). Action categories in lateral occipitotemporal cortex are organized along sociality and transitivity. *J Neurosci*. 37(3), 562-575.
- [13] **Wurm, M. F.**, Schubotz, R. I. (2017). What's she doing in the kitchen? Context helps when actions are hard to recognize. *Psychon Bull Rev*. 24(2), 503-509.
- [12] **Wurm, M. F.**, Ariani, G., Greenlee, M. W., Lingnau, A. (2016). Decoding Concrete and Abstract Action Representations During Explicit and Implicit Conceptual Processing. *Cereb Cortex*. 26(8), 3390-3401.
- [11] Ariani, G., **Wurm, M. F.**, Lingnau, A. (2015). Decoding Internally- and Externally-Driven Movement Plans. *J Neurosci*. 35(42), 14160-14171.
- [10] Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. (2015). Objects Mediate Goal Integration in Ventrolateral Prefrontal Cortex during Action Observation. *PLoS One* 10(7):e0134316.
- [9] **Wurm, M. F.**, Lingnau, A. (2015). Decoding actions at different levels of abstraction. *J Neurosci*. 35(20), 7727-7735.
- [8] **Wurm, M. F.**, Hrkac, M., Morikawa, Y., Schubotz, R. I. (2014). Predicting goals in action episodes attenuates BOLD response in inferior frontal and occipitotemporal cortex. *Behav Brain Res*. 274, 108-117.
- [7] Schubotz, R. I., **Wurm, M. F.**, Wittmann, M. K., von Cramon, D. Y. (2014). Objects tell us what action we can expect: dissociating brain areas for retrieval and exploitation of action knowledge during action observation in fMRI. *Front Psychol*. 5, 636.
- [6] Hrkać, M., **Wurm, M. F.**, Schubotz, R. I. (2014). Action observers implicitly expect actors to act goal-coherently, even if they do not: an fMRI study. *Hum Brain Mapp*. 35(5), 2178-2190.
- [5] Turella, L., **Wurm, M. F.**, Tucciarelli, R., Lingnau, A. (2013). Expertise in action observation: recent neuroimaging findings and future perspectives. *Front Hum Neurosci*. 7, 637.
- [4] **Wurm, M. F.**, Cramon, D. Y., Schubotz, R. I. (2012). The context-object-manipulation triad: cross talk during action perception revealed by fMRI. *J Cogn Neurosci*. 24(7), 1548-1559.
- [3] Schiffer, A. M., Ahlheim, C., **Wurm, M. F.**, Schubotz, R. I. (2012). Surprised at all the entropy: hippocampal, caudate and midbrain contributions to learning from prediction errors. *PLoS One*, 7(5):e36445.
- [2] **Wurm, M. F.**, Schubotz, R. I. (2012). Squeezing lemons in the bathroom: contextual information modulates action recognition. *NeuroImage*. 59(2), 1551-1559.
- [1] **Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2011). Do we mind other minds when we mind other minds' actions? A functional magnetic resonance imaging study. *Hum Brain Mapp*. 32(12), 2141-2150.

Submitted manuscripts

Wurm, M. F., Erigüç, Y. (2023). Decoding the physics of actions in the human brain.
<https://doi.org/10.1101/2023.10.04.560860>.

Liu, S., **Wurm, M. F.**, Caramazza A. (2023). Dissociating Goal from Outcome During Action Observation.
<https://doi.org/10.1101/2023.10.31.564940>.

Book Chapters

Leshinskaya, A., **Wurm, M. F.**, Caramazza, A. (2020). Concepts of Actions and their Objects. *In: Gazzaniga, M., Mangun, G. R., Poeppel, D. The Cognitive Neurosciences*, 6th Edition, 757-765.

Talks

- Wurm, M. F.** & Erigüç, Y. Decoding the physics of actions in the dorsal visual pathway. *Vision Science Society (VSS) Annual Meeting*, St Pete Beach, FL, USA, May 2023.
- Wurm, M. F.** Decoding the physics of actions in parietal cortex. *International Convention of Psychological Science (ICPS)*, Brussels, Belgium, March 2023.
- Wurm, M. F.** Disentangling physical action components in the brain. *Action Representation Symposium*, Regensburg, Germany, September 2022.
- Wurm, M. F.** New insights into the neural basis of action recognition – and beyond. Seminar, IMT Lucca, Italy, February 2022.
- Wurm, M. F.** New insights into the neural basis of action recognition – and beyond. Virtual Seminar, Johns Hopkins University, USA, January 2022.
- Wurm, M. F.** A novel framework for the neural organization of action and object knowledge. Virtual Seminar, Boston College, USA, August 2020.
- Wurm, M. F.** A novel framework for the neural organization of action and object knowledge. Virtual Seminar, Bangor University, UK, May 2020.
- Wurm, M. F.**, Caramazza A. Decoding the meaning of actions across vision and language. Virtual Symposium Talk, *61th Conference of Experimental Psychologists*, Jena, Germany, April 2020.
- Wurm, M. F.** A novel framework for the neural organization of action and object knowledge. UC Louvain, Belgium, February 2020.
- Wurm, M. F.** A novel framework for the neural organization of action and object knowledge. CEU, Budapest, Hungary, January 2020.
- Wurm, M. F.** A novel framework for the neural organization of action and object knowledge. University of Regensburg, Germany, December 2019.
- Wurm, M. F.** New insights into the neural representation of action knowledge. Technical University Munich, Germany, October 2018.
- Wurm, M. F.** New insights into the neural representation of action knowledge. Institute of Cognitive Neuroscience (ICN), UCL, London, UK, January 2018.
- Wurm, M. F.**, Caramazza, A., Lingnau, A. The representational organization of action event knowledge along features of sociality and transitivity. Budapest CEU Conference on Cognitive Development (BCCCD), Budapest, Hungary, January 2018.
- Wurm, M. F.** The neural representation of action knowledge. CNRS, Lyon, France, November 2017.
- Wurm, M. F.** Transforming object features into action affordances. German Research Foundation (DFG) *priority program meeting "Tool choosing and tool using"*, Cologne, Germany, July 2017.
- Wurm, M. F.** Decoding concrete and abstract action representations – an fMRI-based MVPA approach. *Belgian Association for Psychological Science (BAPS)*, Brussels, Belgium, May 2015.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts at different levels of abstraction – an MVPA fMRI study (Abstract Award Talk). Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2014.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts at different levels of abstraction – an MVPA study. *56th Conference of Experimental Psychologists*, Gießen, Germany, April 2014.
- Wurm, M. F.**, Woitscheck, C., Giuliani D., Schubotz, R. I. Influence of spatial context on action recognition from toddlerhood to middle childhood. *54th Conference of Experimental Psychologists*, Mannheim, Germany, April 2012.
- Wurm, M. F.** Nonmotor inputs to action recognition. CIMeC, University of Trento, Mattarello, Italy, May 2011.
- Wurm, M. F.**, Schubotz, R. I. Contextual information provided by domestic settings modulates action recognition. *53th Conference of Experimental Psychologists*, Halle, Germany, March 2011.

Abstracts in Peer-reviewed Conference Proceedings

- Wurm, M. F.** & Erigüç, Y. (2023) Decoding the physics of actions in the dorsal visual pathway. *Journal of Vision* 23 (9), p. 4893
- de Vries, I. E. J., **Wurm, M. F.** (2022). Predictive neural representations of sensory input revealed by a novel dynamic RSA approach. *Journal of Vision* 22 (14), p. 3888.
- de Vries, I. E. J., **Wurm, M. F.** (2021). Predictive neural representations of sensory input revealed by a novel dynamic RSA approach. *Journal of Neuroscience* (Supplement).
- Akbıyık, S., Caramazza A., & **Wurm, M. F.** (2021) Shared and distinct neural representations of human-agent actions and inanimate events. *Journal of Cognitive Neuroscience* (Supplement).
- Akbıyık, S., Caramazza A., & **Wurm, M. F.** (2021) Shared and distinct neural representations of human-agent actions and inanimate events. *Journal of Vision* 21 (9), p. 2490.
- Wurm, M. F.**, Caramazza A. (2020). Decoding the meaning of actions across vision and language. In: *Dobel, C., et al. (Eds.). Abstracts of the 61th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 293.
- Wurm, M. F.***, Vannuscorps G.*, Striem-Amit, E., Caramazza A. (2017). The neural correlates of hand and foot action recognition in individuals born without upper limbs. *Journal of Vision* 17 (10), p. 988. *equal contribution.
- El-Sourani, N., Trempler, I. C., **Wurm, M. F.**, Fink, G. R., Schubotz, R. I. (2017). Making sense of objects lying about: How contextual objects shape brain activity during action observation. *Journal of Cognitive Neuroscience* (Supplement).
- Ariani, G., **Wurm, M. F.**, Lingnau, A. (2014). Decoding free-choice movement selection during motor planning. *Journal of Neuroscience* (Supplement), p. 227.
- Wurm, M. F.**, Hrkać, M., Schubotz., R. I. (2014). Embedding actions into episodes: benefits and costs detected with fMRI. In: *Güntürkün, O. (Ed.). Abstracts of the 49th Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Lengerich: Pabst Science Publisher, p. 451.
- Wurm, M. F.**, Schubotz., R. I. (2014). Rooms imply actions – behavioral and fMRI evidence for contextual modulation of action observation. In: *Güntürkün, O. (Ed.). Abstracts of the 49th Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Lengerich: Pabst Science Publisher, p. 451.
- Woitscheck, C., **Wurm, M. F.**, Giuliani, D., Schubotz, R. I. (2014). Cooking in the kitchen: room-action coupling informs action recognition in 4-8 year old children. In: *Güntürkün, O. (Ed.). Abstracts of the 49th Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Lengerich: Pabst Science Publisher, p. 451.
- Schubotz, R. I., **Wurm, M. F.**, Wittmann, M. K., & von Cramon, D. Y. (2014). Objects tell us what action we can expect: Using fMRI to dissociate retrieval and exploitation of action knowledge in action observation. In: *Güntürkün, O. (Ed.). Abstracts of the 49th Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Lengerich: Pabst Science Publisher, p. 450.
- Wurm, M. F.**, Lingnau, A. (2014). Decoding action concepts at different levels of abstraction – an MVPA fMRI study. *NeuroImage* (Supplement), p. 261.
- Ariani, G., **Wurm, M. F.**, Lingnau, A. (2014). Decoding free-choice movement selection during motor planning. *NeuroImage* (Supplement), p. 227.
- Wurm, M. F.**, Lingnau, A. (2014). Decoding action concepts at different levels of abstraction – an MVPA fMRI study. *Journal of Cognitive Neuroscience* (Supplement), p. 62.
- Wurm, M. F.**, Lingnau, A. (2014). Decoding action concepts at different levels of abstraction. In: *Schütz, A., Drewing, K., Gegenfurtner, K. (Eds.). Abstracts of the 56th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 289.
- Ariani, G., **Wurm, M. F.**, Lingnau, A. (2014). Decoding free-choice movement selection during motor planning. In: *Schütz, A., Drewing, K., Gegenfurtner, K. (Eds.). Abstracts of the 56th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 15.
- El-Sourani, N., **Wurm, M. F.**, Kluger, D., Schubotz, R. I. (2014). The role of contextual objects in action recognition. In: *Schütz, A., Drewing, K., Gegenfurtner, K. (Eds.). Abstracts of the 56th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 62.

- Wurm, M. F.**, Petris, S., Ariani, G., Greenlee, M. W., Lingnau, A. (2013). Decoding actions across objects. *Journal of Neuroscience* (Supplement).
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. (2013). Making sense of subsequent action: neural signatures of spontaneous interpretation. In: *Ansorge, U., Kirchler, E., Lamm, C., Leder, H. (Eds.). Abstracts of the 55th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 365.
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. (2012). Making sense of subsequent action: frontal signatures of spontaneous interpretation. *Neuroimage* (Supplement), p. 171.
- Wurm, M. F.**, Schubotz, R. I. (2012). The role of the temporoparietal cortex (TPJ) in action perception. *Journal of Cognitive Neuroscience* 24 (Supplement), p. 198.
- Wurm, M. F.**, Woitscheck, C., Giuliani D., Schubotz, R. I. (2012). Influence of spatial context on action recognition from toddlerhood to middle childhood. In: *Broeder, A., Erdfelder, E., Hilbig, B.E., Meiser, T., Pohl, R., Stahlberg, D. (Eds.). Abstracts of the 54th Conference of Experimental Psychologists*, Lengerich: Pabst Science Publisher, p. 145.
- Wurm, M. F.**, Schubotz, R. I. (2011). Contextual settings modulate action recognition: behavioral and functional imaging evidence. *Basal Ganglia*, vol: 1, issue: 2, pp. 111-112.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2011) Context frames provided by domestic settings modulate action recognition: a functional magnetic resonance imaging study. *Journal of Cognitive Neuroscience* 23 (Supplement), p. 53.
- Hrkać, M., **Wurm, M. F.**, Morikawa, Y., Schubotz, R. I. (2011). Merging acts to episodes: what is more important, consistency of the actor or the presence of overarching goals? *Journal of Cognitive Neuroscience* 23 (Supplement), p. 44
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2011). Brushing teeth in the kitchen: How context frames provided by domestic settings modulate the recognition of actions – an fMRI study. In: *Bittrich, K., Blankenberger, S., Lukas, J. (Eds.). Beiträge zur 53. Tagung experimentell arbeitender Psychologen*, Lengerich: Pabst Science Publisher, p. 198.
- Hrkać, M., **Wurm, M. F.**, Morikawa, Y., Schubotz, R. I. (2011). Was ist wichtiger für das Verstehen einer Episode, Kohärenz der Person oder Handlungsziel? Neuronale Korrelate der Kohärenzbildung bei Handlungsbeobachtung. In: *Bittrich, K., Blankenberger, S., Lukas, J. (Eds.). Beiträge zur 53. Tagung experimentell arbeitender Psychologen*, Lengerich: Pabst Science Publisher, p. 236.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2010) Observing actions from allocentric perspectives triggers reflections about mental states. An fMRI study. In: *Frings, C., Mecklinger, A., Wentura, D., Zimmer, H. (Eds.). Beiträge zur 52. Tagung experimentell arbeitender Psychologen*, Lengerich: Pabst Science Publisher, p. 306.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2010) Dealing with Actions or Dealing with Actors? From Motor Simulation to Theory of Mind. *Journal of Cognitive Neuroscience* 22 (Supplement), p. 188.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. (2010) Minding Minds during Minding Minds' Actions. An fMRI Study. *Human Brain Mapping* 22 (Supplement), p. 1495.

Conference Presentations

- de Vries, I. E. J., de Lange, F., **Wurm, M. F.** Predictive neural representations of unfolding actions. Talk at *Dutch Society for Brain and Cognition (NVP) Winter Conference*, Egmond aan Zee, Netherlands, December 2023.
- de Vries, I. E. J., de Lange, F., **Wurm, M. F.** Predictive neural representations of unfolding actions. Talk at *Cutting Gardens (Distributed M/EEG conference)*, Nijmegen, Netherlands, October 2023.
- de Vries, I. E. J., de Lange, F., **Wurm, M. F.** Predictive neural representations of unfolding actions revealed by dynamic RSA. *Salzburg Mind-Brain Annual Meeting (SAMBA)*, July 2023.
- Murziakova, N., **Wurm, M. F.** Characterizing neural representations of observed human movements. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2023.

- de Vries, I. E. J., de Lange, F., **Wurm, M. F.** Predictive neural representations of unfolding actions revealed by dynamic RSA. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2023.
- Flieger, P., **Wurm, M. F.** Lateralized cause and effect representations in action observation. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2023.
- de Vries, I. E. J., **Wurm, M. F.** Predictive neural representations of sensory input revealed by a novel dynamic RSA approach. Talk at *TEX2022: Predictive Processes and Statistical Learning*, SISSA, Trieste, Italy, July 2022.
- de Vries, I. E. J., **Wurm, M. F.** Predictive neural representations of sensory input revealed by a novel dynamic RSA approach. Talk and Travel Award at the *Vision Science Society Annual Meeting*, St Pete Beach, FL, USA, May 2022.
- de Vries, I. E. J., **Wurm, M. F.** Predictive neural representations of sensory input revealed by a novel dynamic RSA approach. Virtual presentation at *Neuroscience (SfN)*, November 2021.
- de Vries, I. E. J., **Wurm, M. F.** Dynamic representational similarity analysis – a novel method for investigating neural representations of dynamic sensory input. Virtual presentation at the *Salzburg Mind-Brain Annual Meeting (SAMBA)*, July 2021.
- Akbiyik. S., Caramazza A., & **Wurm, M. F.** Shared and distinct neural representations of human-agent actions and inanimate events. *Cognitive Neuroscience Society Virtual Meeting* (awarded with a DataBlitz presentation), March 2021.
- Akbiyik. S., Caramazza A., & **Wurm, M. F.** Shared and distinct neural representations of human-agent actions and inanimate events. *Vision Science Society Virtual Meeting*, May 2021.
- Akbiyik. S., Caramazza A., & **Wurm, M. F.** Shared and distinct neural representations of human-agent actions and inanimate events. Special Online Event. Talk and Best Abstract Award, *European Workshop on Cognitive Neuropsychology (EWCN)*, Bressanone, January 2021.
- Wurm, M. F.***, Vannuscorps G.*, Striem-Amit, E., Caramazza A. The neural correlates of hand and foot action recognition in individuals born without upper limbs. *Vision Science Society Annual Meeting*, St Pete Beach, FL, USA, May 2017. *equal contribution.
- El-Sourani, N., Trempler, I. C., **Wurm, M. F.**, Fink, G. R., Schubotz, R. I. I spy with my little eye: How contextual objects shape brain activity during action observation. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2017.
- El-Sourani, N., Trempler, I. C., **Wurm, M. F.**, Fink, G. R., Schubotz, R. I. Making sense of objects lying about: How contextual objects shape brain activity during action observation. *24th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, USA, April 2017
- Tucciarelli, R., **Wurm, M. F.**, Roth, Z., Zohary, E., Lingnau, A. Dissociating action states and functions - an fMRI-MVPA study. *CUBIC Workshop*, London, UK, June 2016.
- Wurm, M. F.**, Caramazza, A. Decomposing the neural components of social actions. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2016.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts from distinct categories – an MVPA study. *Social Cognition 2015*, Bangor, UK, August 2015.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts from distinct categories – an MVPA study. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2015.
- Tucciarelli, R., **Wurm, M. F.**, Roth, Z., Zohary, E., Lingnau, A. Dissociating action states and functions – an MVPA study. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2015.
- Wurm, M. F.**, Hrkać, M., Schubotz, R. I. Embedding actions into episodes: benefits and costs detected with fMRI. *49. Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Bochum, Germany, September 2014.

- Wurm, M. F.**, Schubotz, R. I. Rooms imply actions – behavioral and fMRI evidence for contextual modulation of action observation. *49. Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Bochum, Germany, September 2014.
- Woitscheck, C., **Wurm, M. F.**, Giuliani, D., Schubotz, R. I. (2014). Cooking in the kitchen: room-action coupling informs action recognition in 4-8 year old children. *49. Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Bochum, Germany, September 2014.
- Schubotz, R. I., **Wurm, M. F.**, Wittmann, M. K., von Cramon, D. Y. (2014). Objects tell us what action we can expect: Using fMRI to dissociate retrieval and exploitation of action knowledge in action observation. *49. Kongress der Deutschen Gesellschaft für Psychologie (DGPs)*, Bochum, Germany, September 2014.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts at different levels of abstraction – an MVPA fMRI study. *20th Annual Meeting of the Organization of Human Brain Mapping*, Hamburg, Germany, June 2014.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts at different levels of abstraction – an MVPA fMRI study (Best Abstract Award). Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2014.
- Ariani, G., **Wurm, M. F.**, Lingnau, A. Decoding free-choice movement selection during motor planning. *20th Annual Meeting of the Organization of Human Brain Mapping*, Hamburg, Germany, June 2014.
- Ariani, G., **Wurm, M. F.**, Lingnau, A. Decoding free-choice movement selection during motor planning (Best Abstract Award). Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2014.
- Wurm, M. F.**, Lingnau, A. Decoding action concepts at different levels of abstraction – an MVPA fMRI study. *21th Annual Meeting of the Cognitive Neuroscience Society*, Boston, USA, April 2014.
- Wurm, M. F.**, Petris, S., Ariani, G., Greenlee, M. W., Lingnau, A. Decoding actions across objects. *Neuroscience (SfN)*, San Diego, USA, November 2013.
- Wurm, M. F.**, Petris, S., Ariani, G., Greenlee, M. W., Lingnau, A. Decoding actions across objects. *3rd IMPRS NeuroCom Summer School*, Leipzig, Germany, July 2013.
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. Adding up subsequent actions: neural correlates of spontaneous interpretation. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2013.
- Wurm, M. F.**, Petris, S., Ariani, G., Greenlee, M. W., Lingnau, A. Decoding actions across objects. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May 2013.
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. Making sense of subsequent action: neural signatures of spontaneous interpretation. *55th Conference of Experimental Psychologists*, Vienna, Austria, March 2013.
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. Making sense of subsequent action: neural signatures of spontaneous interpretation. *NeuroVisionen 8*, Aachen, Germany, October 2012.
- Hrkać, M., **Wurm, M. F.**, Kühn, A. B., Schubotz, R. I. Making sense of subsequent action: frontal signatures of spontaneous interpretation. *18th Annual Meeting of the Organization of Human Brain Mapping*, Beijing, China, June 2012.
- Wurm, M. F.**, Schubotz, R. I. Taking the actor's perspective: The role of the temporoparietal cortex (TPJ) in action perception. Workshop on *Concepts, Actions, and Objects (CAOs) – Functional and neural perspectives*, Rovereto, Italy, May, 2012.
- Wurm, M. F.**, Schubotz, R. I. The role of the temporoparietal cortex (TPJ) in action perception. *19th Annual Meeting of the Cognitive Neuroscience Society*, Chicago, USA, April 2012.
- Hrkać, M., **Wurm, M. F.**, Morikawa, Y. Schubotz, R. I. Merging acts to episodes: What are the neural correlates of episodic embedding of observed actions? *Donders Discussions*, Nijmegen, Netherlands, October 2011.
- Wurm, M. F.**, Schubotz, R. I. Contextual settings modulate action recognition: behavioral and functional imaging evidence. *International Symposium of the Clinical Research Group 219*, Cologne, Germany. May 2011.

- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Context frames provided by domestic settings modulate action recognition: a functional magnetic resonance imaging study. *18th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, USA, April 2011.
- Hrkać, M., **Wurm, M. F.**, Morikawa, Y., Schubotz, R. I. Merging acts to episodes: what is more important, consistency of the actor or the presence of overarching goals? *18th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, USA, April 2011.
- Hrkać, M., **Wurm, M. F.**, Morikawa, Y., Schubotz, R. I. Was ist wichtiger für das Verstehen einer Episode, Kohärenz der Person oder Handlungsziel? Neuronale Korrelate der Kohärenzbildung bei Handlungsbeobachtung. *53th Conference of Experimental Psychologists*, Halle, Germany, March 2011.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Actions Implied by Domestic Settings: The Influence of Spatial Context on Action Recognition. *Anticipatory Behavior in Adaptive Learning Systems (ABiALS) – Spatial Representations and Dynamic Interactions*, ZIF Bielefeld, Germany, February 2011.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Considering Mental States during Action Observation: The Intriguing Role of the Third Person Perspective uncovered by fMRI. *Neurovisionen 6*, Bochum, Germany, September 2011.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Minding Minds during Minding Minds' Actions. An fMRI Study. *16th Annual Meeting of the Organization for Human Brain Mapping*, Barcelona, Spain, June 2010.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Dealing with Actions or Dealing with Actors? From Motor Simulation to Theory of Mind. *17th Annual Meeting of the Cognitive Neuroscience Society*, Montreal, Canada, April 2010.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Observing actions from allocentric perspectives triggers reflections about mental states. An fMRI study. *52th Conference of Experimental Psychologists*, Saarbrücken, Germany, March 2010.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Observing Actions vs. Observing Actors: Where Motor Simulation meets Theory of Mind. *Third Vogt-Brodmann Symposium*, Jülich, Germany, December 2009.
- Wurm, M. F.**, von Cramon, D. Y., Schubotz, R. I. Dealing with Actions or Dealing with Actors? From Motor Simulation to Theory of Mind. *Donders Discussions*, Nijmegen, Netherlands, October 2009.

Teaching

2023 –	“Research Design” (Master Course), CIMeC, University of Trento, Italy
2020 –	Lecturer – “Advanced Hands-on fMRI Analysis” (Master Course), CIMeC, University of Trento, Italy
2020 –	Lecturer – “Introduction to Computer Programming” (Master Course), CIMeC, University of Trento, Italy
2019	Lecturer – “Basic Skills for Computer Programming” (Master Course), CIMeC, University of Trento, Italy
05/2015	Teaching Assistant – “Hands-on fMRI data Analysis”, CIMeC, University of Trento, Italy
03/2011 – 06/2011	Lecturer – “Experimental Psychology” (Seminar), Department of Psychology, University of Münster, Germany
10/2010 – 12/2010	Lecturer – “Biological Psychology” (Undergraduate Lecture, on behalf of Ricarda Schubotz), Department of Psychology, University of Münster, Germany
07/2004 – 12/2004	Teaching Assistant – “Introduction to Botany” (Undergraduate Course), University of Cologne, Germany

01/2004 – 06/2004 Teaching Assistant – “Introduction to Zoology” (Undergraduate Course), University of Cologne, Germany

Supervision

11/2023 – Marisa Birk (PhD Student), CIMEC, University of Trento, Italy
 11/2023 – Annika Tesio (Master Student), CIMEC, University of Trento, Italy
 01/2023 – 12/2023 Mesude Okhan (Master Student), University of California Santa Barbara, USA / CIMEC, University of Trento, Italy
 10/2022 – 12/2023 Nadezhda Murziakova (Master Student), CIMEC, University of Trento, Italy
 10/2022 – 07/2023 Philipp Flieger (Master Student), Donders Institute, Radboud University, Nijmegen, Netherlands
 10/2022 – 03/2023 Paula Faimann (Master Student), CIMEC, University of Trento, Italy
 10/2021 – 10/2022 Yiğit Erigüç (Master Student), CIMEC, University of Trento, Italy
 09/2021 – 10/2022 Seoyoung Lee (Master Student), CIMEC, University of Trento, Italy
 07/2020 – 07/2022 Ingmar de Vries (Postdoctoral Fellow), CIMEC, University of Trento, Italy
 09/2019, 03/2020 Giulio Zani (Research Intern), University of Padova, Italy
 04/2019 – Seda Akbıyık (Ph.D. Student; co-supervision), Harvard University, USA
 04/2019 – 04/2020 Vlad Mardare (Research Intern/Research Assistant), CIMEC, University of Trento, Italy
 10/2013 – 06/2019 Nadiya El-Sourani (Ph.D. Student; co-supervision), University of Münster, Germany
 01/2015 – 07/2015 Matthias Gumbert (Bachelor Student), CIMEC, University of Trento, Italy
 09/2013 – 06/2014 Iman Honarpour (Master Student), CIMEC, University of Trento, Italy
 03/2014 – 06/2014 Dario Zarella (Research Intern), CIMEC, University of Trento, Italy
 06/2010 – 12/2010 Christina Artemenko (Bachelor Student), Max Planck Institute for Neurological Research in Cologne, Germany
 2009 – 2011 Research Internships: Florian Bolenz (2011), Ilona Schneider (2011), Sonja Krettek (2011), Marcin Lipski (2011), Lizbeth Cardenas-Morales (2010), Yuka Morikawa (2010), Anna Schneider (2009, 2010), Constantin Erlenbeck (2009)

Other Academic Activities

Ad hoc Reviewer for *Science*; *Science Advances*; *Nature Communications*; *Nature Human Behaviour*; *eLife*, *Journal of Neuroscience*; *Cerebral Cortex*; *Communications Biology*; *Developmental Cognitive Neuroscience*; *Human Brain Mapping*; *Journal of Cognitive Neuroscience*; *NeuroImage*; *Neuroscience & Biobehavioral Reviews*; *Scientific Reports*; *Neuropsychologia*; *Proceedings of the Royal Society B*; *Psychonomic Bulletin & Review*; *Neuroscience Letters*; *Language, Cognition, and Neuroscience*; *NeuroImage: Clinical*; *European Journal of Neuroscience*; *Experimental Brain Research*; *Cognitive Science, Attention, Perception, and Psychophysics*; *Brain Topography*; *Journal of Neurolinguistics*, *PLoS One*; *Frontiers in Perception Science*; *Frontiers in Human Neuroscience*

Ad hoc Grant Reviewer for Deutsche Forschungsgesellschaft (DFG, German Research Foundation); Economic and Social Research Council (ESRC, UK); Agence Nationale de la Recherche (ANR, France)

Workshop Organizer: “Workshop on *Concepts, Actions, and Objects – Functional and neural perspectives*”, permanent commission member, Rovereto, Italy, 2019 – present

Symposium Organizer: “Action perception and action understanding: Developmental perspectives”, 54th *Conference of Experimental Psychologists*, Mannheim, Germany, April 2012

Organizer of the CIMEC Colloquia Series, CIMEC, University of Trento, 2022 – present

Delegate for Internship activities, CIMEC, University of Trento, 2022 – present

Library Delegate, CIMEC, University of Trento, 2021 – 2022

Ph.D. Committee Memberships:

2023	Enrico Zingarelli (University of Torino, Italy)
2021 –	Falko Mecklenbrauck (University of Münster, Germany)
2020 –	Antoine Vandenberghe (UCLouvain, Belgium)
2020 –	Benjamin Jainta (University of Münster, Germany)
2015 – 2019	Daniel Kluger (University of Münster, Germany)
2013 – 2019	Nadiya El-Sourani (University of Münster, Germany)

Professional Memberships (past and present): *Society for Neuroscience (SfN)*, *Organization of Human Brain Mapping (OHBM)*, *Cognitive Neuroscience Society (CNS)*

Grants and Awards

Fondo Italiano della Ricerca (FIS) Starting grant, 2024-2029, 1 Mio €.

Piano Nazionale di Ripresa e Resilienza (PNRR) PhD Grant, 2023-2027, 32,000 €

Progetti di Rilevante Interesse Nazionale (PRIN), collaborator (PIs: Francesca Peressotti, University of Padova; Francesco Pavani, CIMEC), 2023-2025, 125,000 €

University of Trento Starting Grant Giovani Ricercatori, 2021, €9000

DFG Research Fellowship (WU 767/1-1), 10/2014 – 03/2017, approx. €54000

Best Abstract Award, Workshop on *Concepts, Actions, and Objects – Functional and neural perspectives*, Rovereto, Italy, May 2014

Other Qualifications

National Scientific Habilitation (Abilitazione Scientifica Nazionale) for Associate Professor for the sectors General Psychology, Psychobiology, and Psychometry (11/E1, until 04/2030) and Physiology (05/D1, until 12/2030)

Collaborations (selection)

Jorge Almeida (University of Coimbra, Portugal)

Stefania Benetti (University of Trento, Italy)

Alfonso Caramazza (Harvard University, USA)

Olivier Collignon (UCLouvain, Belgium)

Floris de Lange (Donders Institute/Radboud University, Netherlands)

Angelika Lingnau (University of Regensburg, Germany)

Veronica Mazza (University of Trento, Italy)

Liuba Papeo (CNRS, Lyon, France)

Francesco Pavani (University of Trento, Italy)

Ricarda I. Schubotz (University of Münster, Germany)

Gilles Vannuscorps (UCLouvain, Belgium)