

# Lina Teichmann

10 Center Drive, Building 10, Room 4C108  
Bethesda, MD 20892, USA

Email: [lina.teichmann@nih.gov](mailto:lina.teichmann@nih.gov)  
Phone: +1 301 451 1669  
Homepage: <https://linateichmann1.github.io>

## EDUCATION

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- 02/2016 – 02/2019 **Macquarie University, Department of Cognitive Science, Sydney, Australia**  
PhD. Thesis title: *Associations, expectations and meaning: Decoding the neural processes underlying conceptual representations*. Supervisors: Prof. Anina Rich, Dr. Thomas Carlson.  
Date of award: 18/09/2019
- 01/2015 – 01/2016 Master of Research. Thesis title: *Long term associations and serial recall: Using synaesthesia to probe memory for sequences*. Supervisors: Prof. Anina Rich, Dr. Mark Nieuwenstein, Dr. Thomas Carlson
- 09/2013 – 09/2014 **University of Groningen, Faculty of Behavioural and Social Sciences, Groningen, The Netherlands**  
Master of Science. Thesis title: *Red, green, blue equals 1,2,3: Investigating the bidirectionality of digit-colour synaesthesia*. Supervisors: Dr. Mark Nieuwenstein, Prof. Anina Rich
- 09/2010 – 09/2013 Bachelor of Science. Supervisor: Dr. Mark Nieuwenstein

## PROFESSIONAL APPOINTMENTS

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- 01/2020 – Present **National Institute of Mental Health, Laboratory of Brain and Cognition, Bethesda, MD, USA**  
Post-doctoral Visiting Fellow  
PI: Dr. Chris Baker
- 02/2019 – 10/2019 **Macquarie University, Department of Cognitive Science, Sydney, Australia**  
Research Assistant [Part-time]  
PIs: Prof. Anina Rich, Dr. Matthew Crossley
- Macquarie University, Department of Psychology, Sydney, Australia**  
Research Assistant [Part-time]  
PI: Dr. Kim Curby

## PEER-REVIEWED PUBLICATIONS

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(\* = equal contribution)

1. **Teichmann, L.\***, Moerel, D.\*, Rich, A. N., Baker, C. I. (2022). The nature of neural object representations during dynamic occlusion. *Cortex*, in print.
2. **Teichmann, L.**, Moerel, D., Baker, C. I., Grootswagers, T. (2022). An empirically-driven guide on using Bayes Factors for M/EEG decoding. *Aperture Neuro*, 1(8) 1-10.

3. Curby, K. M., & **Teichmann, L.** (2022). The time course of holistic processing is similar for face and non-face Gestalt stimuli. *Attention, Perception, & Psychophysics*, 84, 1234-1247.
4. **Teichmann, L.**, Edwards, G., Baker, C. I. (2021). Resolving visual motion through perceptual gaps. *Trends in Cognitive Science*, 25(11), 978-991.
5. **Teichmann, L.**, Grootswagers, T., Moerel, D., Carlson, T. A., & Rich, A. N. (2021). Temporal dissociation of neural activity underlying synaesthetic and perceptual colours. *Proceedings of the National Academy of Sciences*, 118(6).
6. **Teichmann, L.**, Quek, G. L., Robinson, A. K., Grootswagers, T., Carlson, T. A., & Rich, A. N. (2020). The influence of object-color knowledge on emerging object representations in the brain. *Journal of Neuroscience*, 40(35), 6779-6789.
7. Wardle, S. G., Taubert, J., **Teichmann, L.**, Baker, C. I. (2020). Rapid and dynamic processing of face pareidolia in the human brain. *Nature Communications*, 11(1), 1-14.
8. **Teichmann, L.**, Grootswagers, T., Carlson, T. A., & Rich, A. N. (2019). Seeing versus knowing: The temporal dynamics of real and implied colour processing in the human brain. *NeuroImage* 200, 373-381.
9. **Teichmann, L.**, Grootswagers, T., Carlson, T. A., & Rich, A. N. (2018). Decoding digits and dice with Magnetoencephalography: Evidence for a shared representation of magnitude. *Journal of Cognitive Neuroscience*, 30(7), 999-1010.
10. Coltheart, M., Cox, R., Sowman, P., Morgan, H., Barnier, A., Langdon, R., Connaughton, E., **Teichmann, L.**, Williams, N., & Polito, V., (2018). Belief, delusion, hypnosis, and the right dorsolateral prefrontal cortex: A transcranial magnetic stimulation study. *Cortex*, 101, 234-248.
11. **Teichmann, A. L.**, Nieuwenstein, M. R., & Rich, A. N. (2017). Digit-colour synaesthesia only enhances memory for colours in a specific context: A new method of duration thresholds to measure serial recall. *Journal of Experimental Psychology: Human Perception and Performance*, 43(8), 1494-1503.
12. de Wit, B., Badcock, N. A., Grootswagers, T., Hardwick, K., **Teichmann, L.**, Wehrman, J., Williams, M., & Kaplan, D. M. (2017). Neurogaming Technology Meets Neuroscience Education: A Cost-Effective, Scalable, and Highly Portable Undergraduate Teaching Laboratory for Neuroscience. *Journal of Undergraduate Neuroscience Education (JUNE)*. 15(2): A104-A109.
13. **Teichmann, A. L.**, Nieuwenstein, M. R., & Rich, A. N. (2015). Red, green, blue equals 1, 2, 3: Digit-color synesthetes can use structured digit information to boost recall of color sequences. *Cognitive Neuroscience*, 6(2-3), 100-110.

## CONFERENCE PRESENTATIONS

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1. **Teichmann, L.\***, Hebart, M., Baker, C. I. (2022). The temporal dynamics underlying behaviorally-relevant object properties during visual perception. *Organization for Human Brain Mapping, Glasgow, Scotland*. [Talk & Poster].
2. **Teichmann, L.\***, Moerel, D.\*, Rich, A. N., Baker, C. I. (2022). The temporal dynamics of object representation during dynamic occlusion. *Vision Science Society Annual Meeting, St Pete, FL, USA*. [Talk].
3. **Teichmann, L.\***, Moerel, D.\*, Rich, A. N., Baker, C. I. (2021). How are objects represented during dynamic occlusion? *Vision Science Society Annual Meeting, virtual event* [Poster].
4. **Teichmann, L.**, Quek, G., Robinson, A., Grootswagers, T., Carlson, T., Rich, A. (2018). Yellow strawberries and red bananas: Examining the temporal dynamics of object-colour knowledge. *8<sup>th</sup> Australasian Cognitive Neuroscience Conference, Melbourne, Australia* [Talk].
5. **Teichmann, L.**, Grootswagers, T., Carlson, T., Rich, A. (2018). Tomatoes are red, cucumbers are green: Decoding the temporal dynamics of object-colour knowledge using Magnetoencephalography. *Vision Science Society Annual Meeting, St Pete, FL, USA* [Poster].
6. **Teichmann, L.**, Grootswagers, T., Carlson, T., Rich, A. (2017). Seeing colour where there is none: Decoding the implied colour of grey-scale objects using MEG. *40<sup>th</sup> European Conference on Visual Perception (ECVP), Berlin, Germany* [Talk].

7. **Teichmann, L.**, Grootswagers, T., Carlson, T., Rich, A. (2017). Decoding digits and dice with Magnetoencephalography: Evidence for a shared representation of magnitude. *13<sup>th</sup> International Conference on Cognitive Neuroscience (ICON-XIII), Amsterdam, The Netherlands* [Poster].
8. **Teichmann, L.**, Grootswagers, T., Carlson, T., & Rich, A. (2017). Decoding Digits and Dice – Evidence for a format-independent representation of magnitude. *Brain and Mind Centre Symposium, University of Sydney, Sydney* [Poster].
9. **Teichmann, L.**, Grootswagers, T., Carlson, T., & Rich, A. (2017). Seeing colour where there is none: Decoding the implied colour of grey-scale objects using MEG. *Neuroscience Workshop Saclay: Neural Circuits and Behaviour - from cells to connectivity and function, Paris, France* [Talk].
10. **Teichmann, L.** (2017). *The temporal dynamics of real and implied colour processing in the human brain: An MEG decoding study.* *ARC Centre of Excellence in Cognition and its Disorders-KIT MEG Workshop, Macquarie University, Sydney, Australia* [Talk].
11. **Teichmann, L.**, Grootswagers, T., Carlson, T., & Rich, A. (2017). *Seeing colour where there is none: Decoding the implied colour of grey-scale objects using MEG.* *ARC Centre of Excellence in Cognition and its Disorders Annual Workshop, Hunter Valley, Australia* [Talk].
12. **Teichmann, L.**, Carlson, T., & Rich, A.N. (2016). *Decoding digits and dice: How long does it take to access magnitude?* *ARC Centre of Excellence in Cognition and its Disorders Annual Workshop, Leura, Australia* [Poster].
13. **Teichmann, L.**, Grootswagers, T., Carlson, T., Rich, A. (2016). Decoding dice and digits with Magnetoencephalography: How long does it take to access magnitude? *6<sup>th</sup> Australasian Cognitive Neuroscience Conference, Shoal Bay, Australia* [Talk].
14. **Teichmann L.**, Nieuwenstein M., Rich A. (2015). Red, green, blue equals 1, 2, 3: Investigating the bidirectionality of digit-colour synaesthesia. *12<sup>th</sup> International Conference on Cognitive Neuroscience (ICON-XII), Brisbane, Australia* [Poster].
15. **Teichmann, L.**, Nieuwenstein, M., & Rich, A. (2015). *Long term associations and serial recall: Using synaesthesia to probe memory for sequences.* *ARC Centre of Excellence in Cognition and its Disorders Annual Workshop, Macquarie University, Sydney* [Poster].

## INVITED TALKS

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08/2022	MRC Cognition and Brain Sciences Unit, University of Cambridge, UK
08/2022	Department of Cognitive Neuroscience, University of Maastricht, the Netherlands
06/2022	Visual and Cognitive Neuroscience Lab, University of Fribourg, Switzerland
06/2022	Brain Mind Institute, Swiss Federal Institute of Technology, Lausanne, Switzerland
06/2022	Applied Face Cognition Lab, University of Lausanne, Switzerland
06/2022	Vision and Cognition Lab, University of Tübingen, Germany
12/2021	Brain Dynamics Lab, University of Salzburg, Salzburg, Austria
03/2021	Fellows Afternoon Neuroscience Seminar, National Institute of Mental Health, Bethesda, USA
11/2018	Donders Institute for Brain, Cognition, and Behaviour, Nijmegen, the Netherlands
06/2018	Parvizi Lab, Stanford University, Palo Alto, USA
05/2018	Kanwisher Lab, the Massachusetts Institute of Technology (MIT), Cambridge, USA
05/2018	Harvard Vision Lab, Harvard University, Cambridge, USA
01/2017	French National Institute for Health and Medical Research (INSERM), Cognitive Neuroimaging Unit, NeuroSpin Research Centre, Saclay, France
01/2017	Department of Experimental Psychology, University of Groningen, the Netherlands

## SCHOLARSHIPS & FUNDING

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2020	Intramural Visiting Research Fellowship. National Institute of Mental Health.
2018	Postgraduate Research Fund Faculty of Human Sciences, Macquarie University for conference travel and laboratory visits.
2017	Australian Research Council Centre of Excellence in Cognition and its Disorders (CCD) Student Exchange Scheme 2017: “Combining reach-to-touch methods and MEG to investigate neural correlates of the operational momentum effect”.
2015	International Macquarie University Research Training Program Scholarship (Masters and PhD).
2013	Marco Polo Travel Grant, University of Groningen for a research internship at Macquarie University (Australia).
2012	Marco Polo Travel Grant, University of Groningen for a semester abroad at Queen’s University (Canada).

## AWARDS

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2022	Merit Award Organization for Human Brain Mapping
2019	Macquarie University Research Excellence Awards. Finalist for the Excellence in Higher Degree Research Award for Human and Social Science.
2018	Macquarie University Higher Degree Research Excellence Award. Winner of the Excellence Award for the Faculty of Human Sciences.
2018	Australasian Cognitive Neuroscience Society (ACNS) Student Travel Award (2018)
2017	ARC Centre of Excellence in Cognition and its Disorders (CCD) Annual Workshop Joint Winner of Best PhD Poster Award
2016	CCD Annual Workshop Highly Commended Poster Award
2016	CCD Excellence in Research Student Award: Outstanding 2015 Publication
2015	CCD Annual Workshop Best Postgrad Poster Award

## ADDITIONAL RESEARCH EXPERIENCE

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### Extended lab visits

05/2017 – 08/2017	<b>Cognitive Neuroimaging Lab, NeuroSpin</b> , Saclay, France. Advisor: Prof. Stanislas Dehaene (funded by CCD student exchange grant)
01/2014 – 08/2014	<b>Perception in Action Research Centre, Macquarie University</b> , Sydney, Australia. Advisor: Prof. Anina Rich (supported by Marco Polo travel grant)

### Casual research assistant positions

2018	Examining associations between actions and visual cues with MEG. PI: Dr. Simmy Poonian
2017	Examining the temporal dynamics of face processing using MEG. PI: Dr. Susan Wardle
2016 – 2017	Investigating the neural correlates of hypnosis using TMS. PI: Emer. Prof. Max Coltheart
2016	Identifying the neural correlates of feature-selective attention with TMS. PI: Dr. Alexandra Woolgar
2015 – 2018	Investigating the impact of western-style diets on memory functions. PI: Prof. Richard Stevenson

## TEACHING EXPERIENCE

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2021	Teaching assistant for <i>Deep Learning Summer School</i> . Neuromatch, global & virtual initiative.
2016 – 2019	Tutor for <i>COGS100 Introduction to Cognitive and Brain Sciences</i> , Macquarie University, Sydney, Australia. Course convenor: Prof. Mark Williams
2016	Tutor for <i>COGS101 Delusions and Disorders of the Mind and Brain</i> , Macquarie University. Sydney, Australia. Course convenor: Prof. Anne Castles
2015 – 2016	Tutor for <i>PSYC352 Appetite – The Psychology of Eating and Drinking</i> , Macquarie University, Sydney, Australia. Course convenor: Prof. Richard Stevenson

## CONTINUED LEARNING

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2022	Scikit-learn course on machine learning
2021	BIOF509: Applied Machine Learning (Academic Program at NIH)

## SCIENCE OUTREACH & COMMUNICATION

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1. Public Lecture Colour Society of Australia (NSW branch): Yellow tomatoes and red bananas - what does synaesthesia tell us about object-colour knowledge? (September, 2018)
2. Synaesthesia interviews
  - UNSW Art and Design Students, Sydney, via phone (August, 2018)
  - Rockport Fulton High School, Texas, via email (March, 2017)
  - American School Tokyo for Science Day via video-call (February, 2016)
  - High school science project (USA) via email (January, 2016)
  - Honi Soit Newspaper of University of Sydney via email (November, 2015)
  - Media Class Sydney University for a video documentary (October, 2015)
3. Science volunteering
  - Neuromatch Deep Learning Summer School (2021). Project teaching assistant.
  - BrainPost Neuroscience Blog writer (2021-Present). Summarizing recent scientific papers for the general public.
  - Neuromatch Summer School (2020). Content reviewer and volunteer for outreach team.
  - Open Day Macquarie University (2018). Cognitive Science volunteer.
  - Seminar Coordination ARC Centre of Excellence for Cognition and its Disorders (2017).
  - Neuroscience for Kindy Mona Vale Primary School (2017). Perception in Action Research Centre volunteer.
  - Taster Day for Health and Medical Science Macquarie University (2016). Cognitive Science Presentation.
  - High School Work Experience ARC Centre of Excellence for Cognition and its Disorders (2016). Higher Degree Research volunteer.
  - 12th International Conference on Cognitive Neuroscience (ICON) Brisbane (2014). Conference volunteer.

## ACADEMIC REFERENCES

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### Dr. Chris Baker

Laboratory of Brain and Cognition, Section on Learning and Plasticity  
 National Institutes of Health, USA  
 Email: [bakerchris@mail.nih.gov](mailto:bakerchris@mail.nih.gov)

**Prof. Anina Rich**

Department of Cognitive Science

Macquarie University, Australia

Email: [anina.rich@mq.edu.au](mailto:anina.rich@mq.edu.au)