

# Curriculum Vitae — Dr. Gerrit Maus

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## Education

<b>University of California Berkeley</b> Postdoc, Department of Psychology Advisor: Dr. David Whitney	Jan 2010 – Sep 2013
<b>University of California Davis</b> Postdoc, Center for Mind and Brain Advisor: Dr. David Whitney	Nov 2008 – Dec 2009
<b>University of Sussex, UK</b> DPhil in Psychology, Department of Psychology Supervisor: Dr. Romi Nijhawan	Oct 2004 – Jun 2008
<b>Hanse Institute for Advanced Studies, Delmenhorst, Germany</b> European Diploma in Cognitive and Brain Sciences	Sep 2005 – Mar 2007
<b>University of Osnabrück, Germany</b> BSc in Cognitive Science, Institute of Cognitive Science	Oct 2001 – Sep 2004

## Research Experience

<b>University of California Berkeley</b> Associate Research Specialist, Department of Psychology	since Sep 2013
<b>Université Paris Descartes</b> Visiting Scholar, Laboratoire Psychologie de la Perception Collaboration with Dr. Patrick Cavanagh	Oct – Nov 2014
<b>Smith-Kettlewell Eye Research Institute, San Francisco, CA</b> Research Fellow Eye movement project with Dr. Stephen Heinen	Jan – Mar 2013
<b>University of Glasgow</b> Visiting Scholar, Centre for Cognitive Neuroimaging fMRI project with Dr. Lars Muckli	Jul – Aug 2008
<b>University of Sussex</b> Research Assistant, Department of Psychology Work with Dr. Jamie Ward on synaesthesia	Oct 2007 – May 2008
<b>Max Planck Institute for Brain Research</b> Visiting PhD student, Department of Neurophysiology Training in fMRI in Prof. Wolf Singer's group	Jun – Aug 2005, Jul – Aug 2006

## Teaching Experience

- California State University East Bay Apr – June 2015  
**Lecturer** for *Sensation & Perception* course.
- University of California Berkeley Oct 2012  
**Guest Lecture** on Visual Neuroscience for *Biological Psychology* course.
- University of California Davis & Berkeley Nov 2008 – present  
**Mentoring** of undergraduates, research assistants, and graduate students in research projects including instruction in fMRI and TMS.
- University of California Davis & Berkeley Nov 2008 – present  
**Science Outreach Program** with presentations and demos on vision and perception science for local schools in socially and economically disadvantaged areas.
- University of Sussex, UK Oct 2007 – Jun 2008  
**Guest Lectures**
  - Multisensory Perception and Synaesthesia for *Biological Psychology* course.
  - Motion Perception for *Perception and Attention* course.
- University of Sussex, UK Oct 2005 – Jun 2008  
**Associate Tutor.** Seminar teaching for Psychology undergraduate courses
  - *Cognitive Psychology*,
  - *Perception and Attention*,
  - *Introduction to Biological Psychology*.
- University of Sussex, UK Oct 2004 – Sep 2007  
**Graduate Teaching Assistant.** Seminar teaching and supervision of practical sessions for Psychology undergraduate course *Research Methods*. Marking of lab reports and essays, assessment of students' oral contributions, co-supervision of student projects.
- University of Osnabrück, Germany Oct 2002 – Jul 2004  
**Tutor** in Computer Science, tutoring small groups of students for Computer Science course *Object-oriented programming in Java*.

## Publications

- Maus, G.W.**, Potapchuk, E., Watamaniuk, S.N.J., & Heinen, S.J. (in press). Different time scales of motion integration for anticipatory smooth pursuit and perceptual adaptation. *Journal of Vision*.
- Maus, G.W.**, Fischer, J., & Whitney, D. (2013). Motion-dependent representation of space in area MT+. *Neuron* 78(3), 554-562. doi:10.1016/j.neuron.2013.03.010
- Maus, G.W.**, Chaney, W., Liberman, A., & Whitney, D. (2013). The challenge of measuring long-term positive aftereffects. *Current Biology* 23(10), R438-439. doi:10.1016/j.cub.2013.03.024
- Maus, G.W.**, Ward, J., Nijhawan, R., & Whitney, D. (2013). The perceived position of moving objects: Transcranial magnetic stimulation of area MT+ reduces the flash-lag effect. *Cerebral Cortex* 23(1), 241-247. doi:10.1093/cercor/BHS021

- Kosovicheva, A.A., **Maus, G.W.**, Anstis, S., Cavanagh, P., Tse, P.U., & Whitney, D. (2012). The motion-induced shift in the perceived location of a grating also shifts its aftereffect. *Journal of Vision* 12(8), 7. doi:10.1167/12.8.7
- Maus, G.W.**, Fischer, J., & Whitney, D. (2011). Perceived positions determine crowding. *PLoS ONE* 6(5), e19796. doi:10.1371/journal.pone.0019796
- Maus, G.W.**, Weigelt, S., Nijhawan, R., & Muckli, L. (2010). Does area V3A predict positions of moving objects? *Frontiers in Psychology* 1, 186. doi:10.3389/fpsyg.2010.00186
- Maus, G.W.**, Khurana, B., & Nijhawan, R. (2010). History and theory of flash-lag: past, present, and future. In R. Nijhawan & B. Khurana (eds.) *Space and time in perception and action*. Cambridge, UK: Cambridge University Press. doi:10.1017/CBO9780511750540.027
- Banissy, M., Cohen Kadosh, R., **Maus, G.W.**, Walsh, V., & Ward, J. (2009). Prevalence and characteristics of mirror-touch synaesthesia. *Experimental Brain Research* 198(2-3), 261-272. doi:10.1007/s00221-009-1810-9.
- Maus, G.W.** & Nijhawan, R. (2009). Going, going, gone: Localizing abrupt offsets of moving objects. *Journal of Experimental Psychology: Human Perception and Performance*, 35(3), 611-626. doi:10.1037/a0012317.
- Maus, G.W.** & Nijhawan, R. (2008). Motion extrapolation into the blind spot. *Psychological Science*, 19(11), 1087-1091. doi:10.1111/j.1467-9280.2008.02205.x
- Maus, G.W.** (2007). Swimming with and against the stream: Does motor adaptation to lateral forces influence visual motion perception? *Journal of Neuroscience*, 27(49), 13367-13368. doi:10.1523/jneurosci.4545-07.2007.
- Maus, G.W.** & Nijhawan, R. (2006). Forward displacements of fading objects in motion: The role of transient signals in perceiving position. *Vision Research*, 46(26), 4375-4381. doi:10.1016/j.visres.2006.08.028.

## Manuscripts in Preparation

- Maus, G.W.** & Whitney, D. (in preparation). Dynamic filling-in at the retinal blind spot. *Manuscript in preparation*.
- Maus, G.W.**, Ivry, RB, & Whitney, D. (in preparation). Impaired perceptual prediction in patients with cerebellar atrophy. *Manuscript in preparation*.
- Maus, G.W.** & Whitney, D. (in preparation). Asymmetrical attentional tracking causes spatial distortions of moving objects. *Manuscript in preparation*.

## Invited Talks

- Nanyang Technological University, Singapore Feb 2015
- University of California Davis, Department of Psychology Nov 2014
- Ludwig-Maximilians-Universität Munich, Department of Psychology Oct 2014
- University of Aberdeen, School of Psychology Oct 2014
- University of Glasgow, Institute for Neuroscience and Psychology Oct 2014

–	Université Paris Descartes, Laboratoire Psychologie de la Perception	Oct 2014
–	Bangor University, UK, School of Psychology	Jul 2014
–	University of York, UK, Department of Biology	Jun 2014
–	University of Nevada, Reno, Department of Psychology	Jan 2014
–	California State University Channel Islands, Camarillo	Oct 2013
–	Smith-Kettlewell Eye Research Institute, San Francisco	Apr 2013
–	University of Kiel, Institute of Psychology	Oct 2012
–	University of Bielefeld, Faculty of Biology	May 2012
–	University of Münster, Department of Psychology	May 2012
–	Swansea University, Department of Psychology	Feb 2012
–	University of California Berkeley, Department of Psychology	Oct 2010
–	University of California Davis, Center for Mind and Brain	Aug 2008
–	University of Glasgow, Centre for Cognitive Neuroimaging	Jul 2008
–	Universitat de Barcelona, Institute for Brain, Cognition and Behaviour	Jun 2008
–	University of Sussex, Department of Psychology	Mar 2007
–	Rank Prize Funds Mini-Symposium on Active Vision, Windermere, UK	Oct 2005
–	University of Osnabrück, Institute of Cognitive Science	Apr 2004

## Conference Contributions

- Maus, G.W.**, Cavanagh, P., Collins, T., Duyck, M., Lisi, M., Wexler, M., & Whitney, D. (2015) Target displacements during blinks trigger corrective gaze adaptation. *Abstract submitted to VSS 2015 in St. Pete's Beach, FL.*
- Chan, M.Z., Denison, R.D., Whitney, D., & **Maus, G.** (2015). Ambiguous filling-in at the blind spot resolved through perceptual rivalry. *Abstract submitted to VSS 2015 in St. Pete's Beach, FL.*
- Cavanagh, P., Duyck, M., Eymond, C., **Maus, G.**, Schumann, F., Störmer, V., Veenemans, A., Whitney, D., & Wu, D. (2015). Feeling the future. *Abstract submitted to VSS 2015 in St. Pete's Beach, FL.*
- Cavanagh, P., Duyck, M., Eymond, C., **Maus, G.**, Schumann, F., Störmer, V., Veenemans, A., Whitney, D., & Wu, D. (2014). Feeling the future. *Presented at GDR Vision Meeting in Lyon, France.*
- Maus, G.W.** & Whitney, D. (2014). Motion-dependent filling-in at the blind spot. *Journal of Vision* 14(10), 1331. *Talk presented at VSS 2014 in St. Pete's Beach, FL.* doi:10.1167/14.10.1331
- Chaney, W., Fischer, J., **Maus, G.W.**, & Whitney, D. (2014). Spatial attention reduces correlated noise in the fMRI response. *Journal of Vision* 14(10), 620. *Poster presented at VSS 2014 in St. Pete's Beach, FL.* doi:10.1167/14.10.620
- Maus, G.W.**, Ivry, R.B., & Whitney, D. (2013). Impaired perceptual prediction in patients with cerebellar atrophy. *Poster presented at the Neuropsychology workshop 2013 at the University of Leuven, Belgium.*
- Maus, G.W.**, Potapchuk, E., Watamaniuk, S.N.J., & Heinen, S.J. (2013). Opposite effects of adaptation and priming: Speed discriminations during smooth pursuit. *Perception* 42 *ECVP Abstract Supplement*, 184. *Poster presented at ECVP 2013 in Bremen, Germany.* doi:10.1068/v130276

- Maus, G.W.**, Ivry, R.B., & Whitney, D. (2012). The flash-lag effect is reduced in patients with cerebellar atrophy. *Journal of Vision* 12(9), 155. *Poster presented at VSS 2012 in Naples, FL.*  
doi:10.1167/12.9.155
- Bulakowski, P.F., **Maus, G.W.**, Wurnitsch, N., & Whitney, D. (2012). Shifting perceptual biases in auditory-visual temporal order judgments. *Poster presented at APS Annual Convention 2012 in Chicago, IL.*
- Maus, G.W.** & Whitney, D. (2011). Visual crowding is based on perceived positions. *Talk presented at CSAIL in Hood River, OR.*
- Maus, G.W.**, Li, J., & Whitney, D. (2011). Asymmetrical spatial distortions of moving objects. *Journal of Vision* 11(11), 735. *Poster presented at VSS 2011 in Naples, FL.* doi:10.1167/11.11.735
- Kosovicheva, A.A., **Maus, G.W.**, Anstis, S., Cavanagh, P., Tse, P.U., & Whitney, D. (2011). The motion-induced shift of the perceived location of a grating also shifts its aftereffect. *Journal of Vision* 11(11), 754. *Poster presented at VSS 2011 in Naples, FL.* doi:10.1167/11.11.754
- Wurnitsch, N., **Maus, G.W.**, Bulakowski, P.F., & Whitney, D. (2011). Collisions are seen before they are heard. *Journal of Vision* 11(11), 736. *Poster presented at VSS 2011 in Naples, FL.*  
doi:10.1167/11.11.736
- Maus, G.W.**, Fischer, J., & Whitney, D. (2010). Crowded by drifting Gabors: Is crowding based on physical or perceived stimulus position? *Journal of Vision* 10(7), 1349. *Talk presented at VSS 2010 in Naples, FL.* doi:10.1167/10.7.1349
- Maus, G.W.**, Fischer, J., & Whitney, D. (2009). Dragging it out: motion-sensitive areas code perceived positions in the motion-induced flash mislocalization illusion. *Poster presented at SfN 2009 in Chicago, IL.*
- Maus, G.W.**, Fischer, J., & Whitney, D. (2009). Motion distorts position coding of flashes in primary visual cortex. *Perception* 38, ECVF Abstract supplement, 123. *Poster presented at ECVF 2009 in Regensburg, Germany.*
- Maus, G.W.**, Hutton, S.B., Nijhawan, R., Whitney, D., & Ward, J. (2009). Reduction of the flash-lag effect with TMS over MT/V5. *Journal of Vision* 9(8), 646. *Talk presented at VSS 2009 in Naples, FL.* doi:10.1167/9.8.646
- Maus, G.W.**, Weigelt, S., Nijhawan, R., & Muckli, L. (2008). Activity in area V3A predicts positions of moving objects. *Perception* 37, ECVF Abstract supplement, 83. *Talk presented at ECVF 2008 in Utrecht, Netherlands.*
- Ward, J., **Maus, G.W.**, Meijer, P., & Strahl, S. (2008). Helping the blind to see with sound: A man-made synaesthesia. *Talk presented at the Annual General Meeting 2008 of the UK Synaesthesia Association in Edinburgh, UK.*
- Maus, G.W.** & Nijhawan, R. (2008). Motion into and out of the blind spot: Evidence for spatial extrapolation of moving objects. *Perception* 37(2), 308. *Talk presented at the AVA Christmas meeting 2007 in Birmingham, UK.* doi:10.1068/ava07
- Maus, G.W.** & Nijhawan, R. (2007). Competition for perception: Internal models vs retinal transients in perceiving positions of moving objects [Abstract]. *Journal of Vision* 7(9), 987. *Poster presented at VSS 2007 in Sarasota, FL.* doi:10.1167/7.9.987

**Maus, G.W.** & Nijhawan, R. (2007). Sudden disappearance of moving objects overrides motion extrapolation. *Perception* 36(2), 308. *Poster presented at the AVA Christmas meeting 2006 in Birmingham, UK.* doi:10.1068/ava06

Nijhawan, R. & **Maus, G.W.** (2006). Movement of invisible limbs distorts visual space. *Talk presented at ASSC10 in Oxford, UK.*

**Maus, G.W.** (2005). The role of visual transients in perceiving the final position of moving objects. *Invited talk at a Rank Prize Funds Mini-Symposium on 'Active Vision' in Windermere, UK.*

**Maus, G.W.** & Nijhawan, R. (2005). Transient signals mask extrapolated position information of moving objects. *Talk presented at ASSC9 in Pasadena, CA.*

**Maus, G.W.** & Nijhawan, R. (2004). Final position of a gradually disappearing moving object is spatially extrapolated. *Perception* 33, ECVF Abstract supplement, 162c. *Poster presented at ECVF 2004 in Budapest, Hungary.*

## Press Coverage (selected)

- **AAAS Science Update** Radio News Feature: "Tracking fastballs" Oct 2013  
<http://www.scienceupdate.com/2013/10/ball/>
- **CBC "Quirks & Quarks"** Radio Interview: "Seeing faster than the eye can follow" May 2013  
<http://www.cbc.ca/quirks/episode/2013/05/11/may-11-2013/#6>
- **NBC News Science**: "How our brains can track a 100 mph fastball" May 2013  
[http://science.nbcnews.com/\\_news/2013/05/08/18129836-how-our-brains-can-track-a-100-mph-fastball](http://science.nbcnews.com/_news/2013/05/08/18129836-how-our-brains-can-track-a-100-mph-fastball)
- **Los Angeles Times**: "Your brain on baseball: How hitters see a 95-mph fastball" May 2013  
<http://touch.latimes.com/#section/-1/article/p2p-75846143/>
- **San Jose Mercury News**: "UC Berkeley scientists pinpoint how brain tracks fast-moving baseball pitches and tennis serves" May 2013  
[http://www.mercurynews.com/science/ci\\_23201778/](http://www.mercurynews.com/science/ci_23201778/)

## Grant Writing Experience

### Pending Grants

- NIH R01 Research Project Grant "Cerebellar mechanisms for predictive perceptual and oculomotor localization"

### Previously submitted Grants

- NIH K99/R00 Pathway to Independence Award, received an Impact/Priority score of 20
- France-Berkeley Fund
- Larry L. Hillblom Foundation
- Human Frontiers Science Program

### Grant-writing Assistance

I assisted with the preparation of **three NIH R01 grants** on functional neuroimaging projects in the lab of Dr. David Whitney at UC Berkeley.

## Reviewing Activity

### Journals

- Attention, Perception, and Psychophysics
- Biology Letters
- Brain Structure and Function
- Cerebral Cortex
- Cognitive Science
- Consciousness and Cognition
- Experimental Brain Research
- Frontiers in Consciousness Research
- Frontiers in Perception Science
- Journal of Cognitive Neuroscience
- Journal of Experimental Psychology: Human Perception and Performance
- Journal of Neurophysiology
- Journal of Vision
- NeuroImage
- Perception
- PLoS ONE
- Psychological Bulletin
- Vision Research
- Visual Cognition

### Grant Agencies

- Helmholtz Association

## Honors and Awards

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|---|-------------|
| European Conference on Visual Perception (ECVP)<br><b>Student Travel Support Award</b>  | 2008        |
| Applied Vision Association (AVA)<br><b>Geoffrey J. Burton Memorial Award</b>  | 2007        |
| Experimental Psychology Society (EPS)<br><b>Grindley Travel Grant</b>   | 2005        |
| University of Sussex<br><b>Graduate Teaching Assistantship</b><br>Competitively awarded funding for doctoral studies in exchange for teaching services. | 2004 - 2007 |
| German National Academic Foundation<br><b>Undergraduate scholarship</b>   | 2002 - 2003 |

## Administrative Experience

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| University of Sussex, UK<br>Postgraduate Representative, Department of Psychology          | Oct 2005 – Sep 2007 |
| University of Osnabrück, Germany<br>Student Representative, Institute of Cognitive Science | Oct 2002 – Sep 2003 |

## Memberships

- Applied Vision Association, UK (AVA)
- German Academic International Network (GAIN)
- Society for Neuroscience (SfN)
- Vision Sciences Society (VSS)