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Department of Psychology
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PROFESSIONAL EXPERIENCE:

- 2021-2022: **Director**, Animal Care Module, Vanderbilt Vision Research Center
- 2019-present: **Associate Professor**, Department of Psychology, Vanderbilt University, Nashville, TN, USA
- 2019-present: **Associate Professor**, Department of Ophthalmology and Visual Sciences, Vanderbilt University
- 2017-2019: **Assistant Professor**, Department of Ophthalmology and Visual Sciences, Vanderbilt University
- 2011-2019: **Assistant Professor**, Department of Psychology, Vanderbilt University, Nashville, TN, USA
- 2009-2011: **Research Fellow**, National Institutes of Health (NIH), Bethesda, MD, USA
- 2004-2008: **Visiting Fellow**, Unit of Cognitive Neurophysiology and Imaging,
National Institutes of Mental Health (NIMH), Bethesda, MD, USA

EDUCATION

- 2005: **Ph.D.** (“*summa cum laude*”) in Neural and Behavioral Sciences
Max-Planck-Institute for Biological Cybernetics &
Graduate School for Behavioral and Neurosciences,
Eberhard Karls University, Tübingen, Germany
- 2002: **M.Sc.** in Neurobiology, Ludwig-Maximilians-University, Munich, Germany
- 1999: **B.Sc.** in Biology, Ludwig-Maximilians-University, Munich, Germany

HONORSIFIC & MERITORIOUS AWARDS:

- 2018: Vanderbilt Award for Excellence in Graduate Teaching** (*Vanderbilt College of Arts and Sciences*)
- 2015: Kavli Fellow** (*National Academy of Sciences*)
- 2015: Outstanding Teacher of the Year** (*Vanderbilt Brain Institute*)
- 2014: Janett Rosenberg Trubatch Career Development Award** (*Society for Neuroscience*)
- 2013: Alfred P. Sloan Research Fellowship Award** (*Sloan Foundation*)
- 2009: Fellows Award of Research Excellence** (*National Institutes of Health*)
- 2006: Klaus Tschira Award** (*German National Merit Foundation*)
- 2006: Julius Axelrod Memorial Fellowship Award** (*National Institutes of Health*)

RESEARCH GRANTS/ SUPPORT:

- 2022: OpenScope competition (NIH/Allen Institute) – Role: Co-PI (/w André Bastos and Jake Westerberg)
- 2022: VBI Trans-Institutional Partnership Initiative (TIPS) – Role: Co-PI (/w Catie Chang)
- 2021: VMAC Pilot and Feasibility Funding (PI: Catie Chang) – Role: Collaborator
- 2018: R01EY029278-01 (PI: Frank Tong) – Role: Collaborator
- 2018: NVIDIA GPU Grant – Role: PI
- 2017-2022: NEI R01 (EY027402-01) – Role: PI
- 2016: Competitive Renewal, Career Starter Grant, Knights Templar Eye Foundation – Role: PI
- 2015: Career Starter Grant, Knights Templar Eye Foundation – Role: PI
- 2013: Tom Slick Research Award, Mind Science Foundation – Role: PI
- 2013-2015: Fellowship, Alfred P. Sloan Foundation – Role: PI
- 2013-2016: Research Grant, Whitehall Foundation– Role: PI
- 2012-13: Vanderbilt Discovery Grant – Role: Co-PI
- 2012-: Start-Up Grant, College of Arts and Science, Vanderbilt University – Role: PI
Center for Integrative & Cognitive Neuroscience, Vanderbilt University
Vanderbilt Vision Research Center
- 2009-11: NIMH Research Fellowship
- 2004-09: NIH Visiting Fellowship
- 2001-04: Max Planck Society Graduate Student Fellowship

PRE-PRINTS:

Tovar, D.A., Westerberg, J.A., Cox, M.A., Dougherty, K., Wallace, M.T., Bastos, A.M, & **Maier, A.**
Near-field potentials index local neural computations more accurately than population spiking
bioRxiv 2023

PEER-REVIEWED PUBLICATIONS (60+ papers, h-index = 29; total citations >4k):

Mendoza-Halliday, D., Major, A.J, Lee, N., Lichtenfeld, M., Carlson, B.M., Mitchell, B.A., Meng, P.D. Xiong, Y., Westerberg, J.A., **Maier, A.**, Desimone, R., Miller, E.K. & Bastos, A.M. (2024)

A ubiquitous spectrolaminar motif of local field potential power across the primate cortex
Nat. Neurosci. <https://doi.org/10.1038/s41593-023-01554-7>

Westerberg, J.A., Schall, J.D., Woodman, G.F. & **Maier, A.** (2023)
Feedforward attentional selection in sensory cortex.
Nat. Commun. 14 (1), 5993

Mitchell, B.A., Carlson, B.M., Westerberg, J.A., Cox, M.A. & **Maier, A.** (2023)
A Role for Ocular Dominance in Binocular Integration.
Curr. Biol. 33 (18), 3884-3895.e5

Carlson, B.M., Mitchell, B.A., Dougherty, K., Westerberg, J.A., Cox, M.A. & **Maier, A.** (2023)
Does V1 response suppression initiate binocular rivalry?
iScience 26 (8)

Daumail, L., Carlson, B.M., Mitchell, B.A., Cox, M.A., Westerberg, J.A., Johnson, C., Martin, P.R., Tong, F., **Maier, A.** & Dougherty, K. (2023)
Rapid adaptation of primate LGN neurons to drifting grating stimulation.
J. Neurophysiol. 129(6):1447-1467.

Westerberg, J.A., Schall, M.S., **Maier, A.**, Woodman, G.F., Schall, J.D. & Riera, J.J. (2022)
Resolving the mesoscopic missing link: Biophysical modeling of EEG from cortical columns in primates
NeuroImage 263:119593. doi: 10.1016/j.neuroimage.2022.119593

Maier, A. Cox, M.A., Westerberg, J.A. & Dougherty, K. (2022)
Binocular integration in primate primary visual cortex.
Ann. Rev. Vis. Sci. doi: 10.1146/annurev-vision-100720-112922.

Mitchell, B.A., Dougherty, K., Westerberg, J.A., Carlson, B.M., Daumail, L., **Maier, A.**, Cox, M.A. (2022)
Stimulating both eyes with matching stimuli enhances V1 responses.
iScience. 1;25(5):104182. doi: 10.1016/j.isci.2022.104182.

Westerberg, J.A., Schall, M.S., **Maier, A.**, Woodman, G.F. & Schall, J.D. (2022)
Laminar microcircuitry of visual cortex producing attention-associated electric fields.
eLife 11:e72139. doi: 10.7554/eLife.72139.

Westerberg, J.A., Sigworth, E.A., Schall, J.D. & **Maier, A.** (2021)
Pop-out search instigates beta-gated feature selectivity enhancement across V4 layers.
PNAS 118(50):e2103702118. doi: 10.1073/pnas.2103702118.

Vargas, A.N., **Maier, A.**, Vallim, M.B.R., Banda, J.M., Preciado, V.M. (2021)
Negative perception of the COVID-19 pandemic is dropping: evidence from twitter posts.
Front. Psychol. 12, 4067

Dougherty, K. Carlson, B.M., Cox, M.A., Westerberg, J.A., Zinke, W. Schmid, M.C., Martin, P.R. & **Maier, A.** (2021)
Binocular Suppression in the Macaque Lateral Geniculate Nucleus Reveals Early Competitive Interactions between the Eyes
eNeuro 8(2) doi: 10.1523/ENEURO.0364-20.2020.

Kienitz, R., **Maier, A.**, Cox, M.A., Saunders, R.C., Schmiedt, J.T., Leopold, D.A., Schmid, M.C. (2020)
Theta but not gamma oscillations in area V4 depend on input from primary visual cortex.
Curr. Biol. S0960-9822(20)31668-7. doi: 10.1016/j.cub.2020.10.091.

Tovar, D.A., Westerberg, J.A., Cox, M.A., Dougherty, K., Carlson, T., Wallace, M.T., **Maier, A.** (2020)
Stimulus Feature-Specific Information Flow Along the Columnar Cortical Microcircuit Revealed by Multivariate Laminar Spiking Analysis
Front. Syst. Neurosci. 14:600601. doi: 10.3389/fnsys.2020.600601

Tsuchiya, N. & **Maier, A.** (2020)
Growing Evidence for Separate Neural Mechanisms for Attention and Consciousness.
Atten. Percept. Psychophys. doi: 10.3758/s13414-020-02146-4.

Maier, A. (2020)
Visual perception: Human brain cells cause a change of view.
Curr. Biol. 30(16), PR939-R941

Carter, O. Leopold, D.A., van Swinderen, B., Shaun, C., **Maier, A.** (2020)
Perceptual rivalry across animal species.
J. Comp. Neurol. doi:10.1002/cne.24939

- Westerberg, J.A., **Maier, A.** & Schall, J.D. (2020)
Priming of attentional selection in macaque visual cortex: feature-based facilitation and location-based inhibition of return.
eNeuro 7(2) ENEURO.0466-19.2020
- Westerberg, J.A., **Maier, A.**, Woodman, G.F. & Schall, J.D. (2019)
Performance Monitoring During Visual Priming.
J Cogn Neurosci. 32(3):515-526 PMID:31682570
- Poltoratski, S., **Maier, A.**, Newton, A. & Tong, F. (2019)
Figure-Ground Modulation in the Human Lateral Geniculate Nucleus Is Distinguishable from Top-Down Attention.
Curr. Biol. 29(12):2051-2057
PMCID:PMC6625759
- Westerberg, J.A., Cox, M.A., Dougherty, K. & **Maier, A.** (2019)
V1 Microcircuit Dynamics: Altered Signal Propagation Suggests Intracortical Origins for Adaptation in Response to Visual Repetition.
J. Neurophysiol. 121(5):1938-1952
PMCID:PMC6589708
- Cox, M.A., Dougherty, DK., Westerberg, J.A., Schall, M.S., & **Maier, A.** (2019)
Temporal dynamics of binocular integration in primary visual cortex.
Journal of Vision 19(12):13.
PMCID:PMC6797477
- Dougherty, K., Cox, M.A., Westerberg, J.A. & **Maier, A.** (2019)
Binocular modulation of monocular V1 neurons.
Curr. Biol. 29(3):381-391.e4
PMCID:PMC6363852
- Dougherty, K., Schmid, M. & **Maier, A.** (2019)
Binocular response modulation in the lateral geniculate nucleus.
J. Comp. Neurol. J Comp Neurol. 527(3):522-534.
PMCID:PMC6107447
- Noel, J.P., David Simon, D., Thelen, A., **Maier, A.**, Blake, R. & Wallace, M.T. (2018)
Probing Electrophysiological Indices of Perceptual Awareness Across Unisensory and Multisensory Modalities.
J. Cogn. Neurosci. 30(6):814-828. PMID:29488853
- Cox, M.A., Dougherty, K., Westerberg, J.A., Moore, B.S., Adams, G.K., Reavis, E.A., Leopold, D.A. & **Maier, A.** (2017)
Spiking suppression precedes cued attentional enhancement of neural responses in primary visual cortex.
Cerebral Cortex. 29(1):77-90.
PMCID:PMC6294403
- Dougherty, K., Cox, M.A., Ninomiya, T., Leopold, D.A. & **Maier, A.** (2017)
Ongoing alpha activity in V1 regulates visually driven spiking responses.
Cereb. Cortex 27(2):1113-1124
PMCID:PMC6222250
- Shapcott, K.A., Schmiedt, J.T., Saunders, R.C., **Maier, A.**, Leopold, D.A. & Schmid, M.C. (2016)
Correlated activity of cortical neurons survives extensive removal of feedforward sensory input.
Nature Sci. Rep. 6: 34886.
PMCID:PMC5056506
- Foster, B.L., He, B.J., Honey, C.J., Jerbi, K., **Maier, A.**, Saalman, Y.B., (2016)
Spontaneous neural dynamics and multi-scale network organization.
Front. Syst. Neurosci. doi:10.3389/fnsys.2016.00007

PMCID:PMC4746329

Cox, M.A. & **Maier, A.** (2015)

Filling-in the details of spatial interpolation: New evidence for parallel processing in mid-level vision.
Neuroscience of Consciousness. 1-7

PMCID:PMC6089088

Ninomiya, T., Dougherty, K., Godlove, D.C., Schall, J.D. & **Maier, A.** (2015)

Microcircuitry of agranular frontal cortex: contrasting connectivity between occipital and frontal areas.
J. Neurophysiol. 112:3242-3252

PMCID: PMC4440241

Schmid, M.C. & **Maier, A.** (2015)

To see or not to see - thalamo-cortical networks during blindsight and perceptual suppression.
Prog. Neurobiol. 126:36-48 PMID:25661166

Maier, A., Cox, M.A., Dougherty, K., Moore, B & Leopold, D.A. (2014)

Anisotropy of ongoing neural activity in primate visual cortex.

Eye and Brain 6(1):113-120

PMCID:PMC5417743

Schmiedt, J.T., **Maier, A.**, Fries, P., Saunders, R.C., Leopold, D.A. & Schmid, M.C. (2014)

Beta oscillations dynamics in extrastriate cortex after removal of primary visual cortex.

J. Neurosci. 34(35):11857-11864

PMCID: PMC4145181

Godlove, D.C., **Maier, A.**, Woodman, G.F. & Schall, J.D. (2014)

Microcircuitry of agranular frontal cortex: Testing the generality of the canonical cortical microcircuit.

J. Neurosci. 34(15):5355-5369

PMCID: PMC3983808

Cox, M.A., Lowe, K.A., Blake, R. & **Maier, A.** (2014)

Sustained perceptual invisibility of solid shapes following contour adaptation to partial outlines.

Consciousness and Cognition 26:37-50 PMID:24657633

Ghose, D., **Maier, A.**, Nidiffer, A.R. & Wallace, M.T. (2014)

Multisensory response modulation in the superficial layers of the superior colliculus.

J. Neurosci. 34(12):4332-4344

PMCID: PMC3960472

Schmid, M.C., Schmiedt, J.T., Peters, A.J., Saunders, R.C., **Maier, A.** & Leopold, D.A. (2013)

Motion-sensitive responses in visual area V4 in the absence of primary visual cortex.

J. Neurosci. 33(48):18740-18745

PMCID: PMC3841445

Maier, A. (2013)

Neuroscience: The cortical layering of visual processing.

Curr. Biol. 23(21):R959-961 PMID:24200323

Cox, M.A., Schmid, M.C., Peters, A.J., Saunders, R.C., Leopold, D.A. & **Maier, A.** (2013)

Receptive field focus of visual area V4 neurons determines responses to illusory surfaces.

Proc Natl Acad Sci U S A 110(42):17095-17100

PMCID: PMC3801031

Spaak, E., Bonnefond, M., **Maier, A.**, Leopold, D.A. & Jensen, O. (2012)

Layer-specific entrainment of gamma-band neural activity by the alpha rhythm in monkey visual cortex

Curr. Biol. 22(24):2312-2318

PMCID: PMC3528834

Maier, A., Panagiotaropoulos, T., Tsuchiya, N. & Keliris, G.A. (2012)
Binocular rivalry: a gateway to studying consciousness.
Front. Hum. Neurosci. 6:263
PMCID: PMC3457016

Leopold, D.A. & **Maier, A.** (2011)
Ongoing physiological processes in the cerebral cortex.
Neuroimage 62(4):2190-200
PMCID: PMC3288739

Maier, A., Aura, C. & Leopold, D.A. (2011)
Infragranular origin of induced LFP responses in macaque primary visual cortex.
J. Neurosci. 31(6):1971-1980.
PMCID: PMC3075009

Maier, A., Adams, G.K., Aura, C. & Leopold, D.A. (2010)
Distinct superficial and deep laminar domains of activity in the visual cortex during rest and stimulation.
Front. Syst. Neurosci. 4:31
PMCID: PMC2928665

Schölvinck, M.L., **Maier, A.**, Ye, F.Q., Duyn, J.H. & Leopold, D.A. (2010)
Neural basis of global resting state fMRI activity.
Proc Natl Acad Sci U S A 107(22):10238-43
PMCID: PMC2890438
[see also: COMMENT: Hyder, F. & Rothman, DL. (2010). *Proc. Natl. Acad. Sci. USA.* 107(24):10773]

Wang, Z., **Maier, A.**, Logothetis, N.K., Liang, H. (2009)
Extraction of bistable-percept-related features from local field potential by integration of local regression and common spatial patterns.
IEEE Trans. Biomed. Eng. 56(8):2095-2103

Wang, Z., **Maier, A.**, Logothetis, N.K., Liang, H. (2009)
Relaxation based feature selection for single-trial decoding of bistable perception.
IEEE Trans. Biomed. Eng. 56(1):101-110

Maier, A., Wilke, M., Aura, C., Zhu, C., Ye, F.Q. & Leopold, D.A. (2008)
Divergence of fMRI and neural signals in V1 during perceptual suppression in the awake monkey.
Nat. Neurosci. 11(10):1193-1200
PMCID: PMC2754054
[see also: DISPATCH: Blake, R. & Braun, J. (2009). *Curr. Biol.* 19(10):R30-32]

Wang, Z., **Maier, A.**, Logothetis, N.K. & Liang, H. (2008)
Single-trial classification of bistable perception by integrating empirical mode decomposition, clustering and support vector machine.
EURASIP Journal on Advances in Signal Processing 2008:592742

Wang, Z., **Maier, A.**, Logothetis, N.K. & Liang, H. (2008)
Single-trial decoding of bistable perception based on sparse nonnegative tensor decomposition.
Journal of Computational Intelligence and Neuroscience 2008:642387

Maier A., Logothetis, N.K. & Leopold, D.A. (2007)
Context-dependent perceptual modulation of single neurons in primate visual cortex.
Proc Natl Acad Sci U S A 104(13):5620-5625

Wang, Z., **Maier, A.**, Logothetis, N.K., Leopold, D.A., Liang, H., (2007)
Single-trial evoked potential estimation using wavelets.
Computers in Biology and Medicine. 37(4):463-473

Leopold, D.A. & **Maier, A.** (2006)

Neuroimaging: Perception at the brain's core.

Curr. Biol. 16(3):R95-8

Wang, Z., **Maier, A.**, Leopold, D.A., Liang, H. (2006)

Relaxation based multichannel signal combination (RELAX-MUSIC) for perceptual decisions using the area under the ROC Curve.

IEEE Transaction on Biomedical Engineering 5(12):2615-2618

Maier, A., Logothetis, N.K. & Leopold, D.A. (2005)

Global competition dictates local suppression in pattern rivalry.

JOV 5(9):668-677

Maier, A., Wilke, M., Logothetis, N.K. & Leopold, D.A. (2003)

Perception of temporally interleaved ambiguous patterns.

Curr. Biol. 13:1076-1085

[see also: HIGHLIGHT: Jones, R. (2003). *Nat. Rev. Neurosci.* 4, 612]

Leopold, D.A., **Maier, A.** & Logothetis, N.K. (2003)

Measuring subjective visual perception in the nonhuman primate.

J. Consc. Stud. 10(9-10): 115-130

Leopold, D.A., Wilke, M., **Maier, A.** & Logothetis, N.K. (2002)

Stable perception of visually ambiguous patterns.

Nat. Neurosci. 5(6): 605-609

Nikol, S., **Maier, A.**, Krausz, E., Hoefling, B., Huehns, T.Y. (1998)

Current biotechnological approaches to the prevention of restenosis.

BioDrugs 9(5): 376-388

BOOK CHAPTERS:

Shmuel A. & **Maier A.** (2022)
Locally Measured Neuronal Correlates of Functional MRI Signals
In: Mulert, C., Lemieux, L. (eds.)
EEG - fMRI - Physiological Basis, Technique, and Applications, 2nd Ed.
Springer

Dougherty, K., & **Maier, A.** (2020)
Network Properties of Visual Cortex
In: Martin, P.R. (ed.)
The Senses: A Comprehensive Reference, 2nd Ed.
Academic Press (*in press*)

Shmuel A. & **Maier A.** (2020)
Locally Measured Neuronal Correlates of Functional MRI Signals
In: Mulert, C., Lemieux, L. (eds.)
EEG - fMRI - Physiological Basis, Technique, and Applications
Springer

Maier, A., Schall, J., Woodman, G. (2018)
Neural Recordings at Multiple Scales (Chapter 17)
In: Wagenmakers, E.J. (ed.)
Stevens Handbook of Psychology and Cognitive Neuroscience: Methodology (4th ed.)
Wiley, Hoboken, New Jersey, ISBN-13: 978-1119170129, ISBN-10: 9781119170129

Shmuel A. & **Maier A.** (2015)
Locally Measured Neuronal Correlates of Functional MRI Signals
In: Uludag, K., Ugurbil, K. & Berliner, L.J. (eds.)
fMRI: From Nuclear Spins to Brain Function
Biological Magnetic Resonance, Vol. 30.
Springer Science and Business Media, New York, New York, USA. ISBN: 978-1-4899-7590-4

Maier, A. (2012)
Introduction to Neuropricing
In: Mueller, K.-M.
Neuropricing
Haufe. ISBN: 978-3-648-03025-7

Maier, A., Panagiotaropoulos, T., Tsuchiya, N. & Keliris, G.A. (eds.) (2012)
Binocular rivalry: a gateway to studying consciousness.
Frontiers Research Topic Ebook. ISBN: 978-2-88919-069-0

Maier, A. & Leopold, D.A. (2009)
Binocular Rivalry.
In: Wilken, P., Bayne, T., Cleeremans, A. (eds.)
Oxford Companion to Consciousness. Oxford, UK,
Oxford University Press. ISBN: 978-0-19-856951-0

Maier, A. & Leopold, D.A. (2009)
Binocular Rivalry
In: Binder, M.D., Hirokawa, N., Windhorst, U., Hirsch, M.C. (eds.)
Encyclopedia of Neuroscience.
Springer. ISBN: 978-3-540-29678-2

Maier, A. (2006)

Schlechte Nachrichten für Gedankenleser.

Bild der Wissenschaft 11/2006

Leopold, D.A., **Maier, A.**, Wilke, M. & Logothetis, N.K. (2004)

Binocular rivalry and the illusion of monocular vision.

In: D. Alais & R. Blake (eds.), *Binocular rivalry and perceptual ambiguity*, Cambridge, MA:

MIT Press. ISBN: 978-0-262-01212-6

PROFESSIONAL AFFILIATIONS:

2002-present: Society for Neuroscience

2004- present: Vision Science Society

2007- present: Association for the Scientific Study of Consciousness

2013- 2020: Scientific Advisory Board, The Neuromarketing Labs Inc.

2016-present: Faculty for Undergraduate Neuroscience

2016-present: National Center for Faculty Development & Diversity

2022-present: Board Member, Association for Mathematical Consciousness Science

INVITED TALKS, SEMINARS AND SYMPOSIA:

13/09/2023: *Invited Faculty*, Neuroscience School for Advanced Studies (NSAS), Venice, Italy

06/30/2023. **Qualia Structure Meeting**, iQLS, Chiba, Japan: <https://doi.org/10.5281/zenodo.8040953>

10/11/2022 **Monash University**, Melbourne, Australia

05/19/2019 **Annual Meeting of the Vision Sciences Society, Session Chair**, St. Pete Beach, FL

06/18/2018 **International Society for Magnetic Resonance in Medicine, Symposium Speaker**, Paris, France

02/17/2018 **Gordon Research Seminar, Workshop Leader**, Lucca, Italy

10.02/2017 **Southeastern Vision Conference**, Nashville, TN

05/19/2017 **Workshop, 8th International Multisensory Research Forum (IMRF)**, Nashville, TN

11/14/2016 **SfN (46th Annual Meeting), Symposium Speaker**, San Diego, CA, USA

11/5/2016 **4th Arab-American Frontiers of Science symposium**, Abu Dhabi (*declined*)

10/14/2016 **17th Chinese-American Kavli Frontiers of Science Symposium**, Irvine, CA, USA

07/29/2016 **Gordon Research Conference, Symposium Speaker**, Newry, ME

23/02/2015 **2nd Israeli-American Kavli Frontiers of Science Symposium**, Jerusalem, Israel

11/15/2014 **SfN (44th Annual Meeting), Minisymposium Speaker**, Washington. D.C., USA

10/10/2014 **University of Goettingen**, Goettingen, Germany

05/14/2014 **Society for Neuroscience (SfN), Local Chapter**, Middle Tennessee, USA

03/24/2014 **German Primate Center (DPZ)**, Göttingen, Germany

03/10/2014 **Belmont University**, Nashville, TN, USA

11/12/2013 **SfN (43rd Annual Meeting), Nanosymposium Chair**, San Diego, CA, USA

10/13/2012 **SfN (42nd Annual Meeting), Minisymposium Co-Chair**, New Orleans, LA, USA

03/14/2012 **University of Memphis**, Memphis, TN, USA

06/20/2011 **Johns Hopkins University**, Baltimore, MD, USA

04/05/2011 **Harvard University**, Boston, MA, USA

04/04/2011 **Mind/Brain/Behavior Interfaculty Initiative (MBB)**, Harvard University, Boston, MA

03/03/2011 **University of Washington**, Seattle, WA, USA

02/28/2011 **Cosyne (11th Annual Meeting), Workshop Speaker**, Salt Lake City, UT

01/31/2011 **Vanderbilt University**, Nashville, TN, USA

12/08/2010 **Oxford University**, Oxford, UK

07/16/2010 **Harvard University**, Boston, MA, USA

01/08/2010 **Medical Research Council, Cognition and Brain Sciences Unit**, Cambridge, UK

06/24/2010 **ASSC (14th Annual Meeting), Symposium Co-chair**, Toronto, Canada

05/07/2010 **VSS (10th Annual Meeting), Symposium Speaker**, Naples, FL, USA

08/13/2009 **Tamagawa University**, Tokyo, Japan

08/08/2009 **ECVP (32nd Annual Meeting), Symposium Speaker**, Regensburg, Germany

08/03/2009 **Okinawa Institute of Science and Technology**, Okinawa, Japan

07/01/2009 **Donders Institute for Brain, Cognition and Behaviour**, Nijmegen, The Netherlands

02/27/2009 **Newcastle University**, Newcastle upon Tyne, UK
 09/11/2008 **Japan Neuroscience Society (31st Meeting)**, *Symposium Speaker*, Tokyo, Japan
 04/09/2007 **Princeton University**, USA
 02/23/2007 **Yale University**, CT, USA
 04/11/2006 **University of Texas**, Houston, TX, USA
 06/24/2005 **ASSC (9th Annual meeting)**, *Workshop Speaker*, Pasadena, CA

ACADEMIC SERVICE:

2023-: Vice Provost for Research and Innovation Internal Awards Review Committee (OVPR IARC)
 2022-: Departmental Undergraduate Studies Committee
 2021-22: Interinstitutional Faculty Search Committee (VBI/Peabody)
 2021-: College of Arts and Science Admissions Committee
 2021: Department of Psychology Graduate Student Award Committee
 2021-22: Director, Animal Care Module, Vanderbilt Vision Research Center
 2021-23: Alternate Member, Institutional Animal Care and Use Committee
 2021-: Large Animal Advisory Committee
 2019: Departmental Committee on Secondary Appointments
 2019-20: Interinstitutional Faculty Search Committee (VBI/CAS)
 2018: Vanderbilt Goldwater Scholarship Nominating Committee
 2018-21: Society for Neuroscience Trainee Professional Development Awards Selection Committee
 2014: Randolph Blake award selection committee
 2014: Vanderbilt Department of Psychology Strategic Plan Committee
 2014: Vanderbilt College of Arts and Science Curriculum Committee
 2012-21: Vanderbilt Neuroscience Steering Committee
 2011-23: Vanderbilt Psychology Day Speaker Selection Committee
 2011-23: Vanderbilt Department of Psychology Colloquium Committee

ACADEMIC TEACHING:

Recurring: Undergraduate Course: *Perception* (PSY3750)
 (since 2011) Guest Lectures for Neuroscience (NURO8340) and Visual System (PSY3780) Classes:
 Higher-order visual processes
 Neuronal Correlates of Consciousness
 V1 receptive fields
 Extra-striate areas: MT
 Extra-striate areas: V4
 Graduate Seminar: *The Neuroscience of Consciousness/The Resting Brain*
 Spring 2020: College Honors Seminar (HONS1850W): *Brain and Consciousness*

DOCTORAL ADVISING:

Michele A. Cox: 2011-2017 (now postdoc in Michele Rucci's lab at University of Rochester)
 Kacie Dougherty: 2012-2018 (now postdoc in Sabine Kastner's lab at Princeton University)
 Jacob A. Westerberg (co-mentor): 2016-2022 (now postdoc with Pieter Roelfsema's at Netherlands Institute for Neuroscience)
 Brock Carlson (co-mentor): 2019-present (primary)
 Blake A, Mitchell: 2019-present

UNDERGRADUATE INTERNS, MINORITY RESEARCH SCHOLARS AND HONORS STUDENTS:

2022-present: Pax Poggi
 2011: Anna Das
 2012: Davis Nguyen
 2012: Clayton Patrick
 2012: Kaleb Lowe (Honors with Distinction)
 2012: Rachel Chandler (Belmont)

2013: Christopher Kooker
2013: Christopher Xin
2013: Matthew Cherches
2013: Taylor Peabody
2013: Hamed Khandekar (NIH BP-Endure Program)
2014: Powell Newbern (Summer Intern)
2015: Liniya Tauhidul (Summer Intern)
2018: Nikolay Valov (Summer Intern)
2019: Cortez Johnson
2019: Jacob Rogatinsky

REVIEWER FOR RESEARCH JOURNALS:

Cell, Science, Nature Neuroscience, Neuron, PNAS, Journal of Neuroscience, Current Biology, PLOS Biology, Trends in Neurosciences, Trends in Cognitive Sciences, Annals of the New York Academy of Sciences, Neuroimage, Neuropsychologia, Human Brain Mapping, Cerebral Cortex, Journal of Cognitive Neuroscience, Journal of Vision, Perception, Journal of Neurophysiology, Biological Cybernetics, Psychophysiology, Attention, Perception & Psychophysics, Journal of Comparative Neurology, Journal of Cerebral Blood Flow & Metabolism, Neuroscience Letters, Current Eye Research, Brain Structure and Function

REVIEWER FOR FUNDING AGENCIES/STUDY SECTIONS:

National Institutes of Health (NIH) SPC Study Section & Brain Project Study Section, National Science Foundation (NSF), The Human Brain Project (HBP), The John D. and Catherine T. MacArthur Foundation, The Wellcome Trust, The Royal Society, Netherlands Organization for Scientific Research (NWO), L'Agence Nationale de la Recherche (ANR), Economic & Social Research Council (ESRC), Biotechnology and Biological Sciences Research Council (BBSRC), Deutsche Forschungsgemeinschaft (DFG)

EDITORIAL BOARDS:

2017-present: *Consciousness and Cognition*
2015-present: *Frontiers in Integrative Neuroscience*
2011-current: *Frontiers in Human Neuroscience* (Associate)
2010-current: *Frontiers in Perception Science*
2010-current: *Frontiers in Consciousness Research*

OUTREACH/VOLUNTEERING:

2021: OSHER Lifelong Learning
2020: Intersections Science Fellows Symposium (ISFS)
2020: Vanderbilt Integrated Training Alliance (VITA) Scholars Symposium
2013: NIH BP-Endure Mentor

SELECT MEDIA COVERAGE:

NPR “*Academic Minute*”: Mind’s Eye Blink – 01/22/18
NPR “*Science Friday*”: Trapping a proton, the speed of a muscle, and switching attention – 12/01/17
Gehirn & Geist (German edition of *Scientific American: Mind*): Mit den Augen eines Vogels – 04/2016

CONFERENCE CONTRIBUTIONS (IN CHRONOLOGICAL ORDER):

Westerberg, J.A., Durand, S., Bawany, A., Cabasco, H., Loeffler, H., Belski, H., Hardcastle, B., Olsen, S., Lecoq, J., Maier, A. & Bastos, A.M. (2023) Global and local oddball detection across the mouse visual cortical hierarchy. SfN

Xiong, Y. *, Nejat, H. *, Westerberg, J.A., Gabhart, K.M., Meng, P.D., Maier, A. & Bastos, A.M. (2023) Late Hierarchical Emergence of Global Prediction Error Encoding in the Macaque Cortex. SfN

Mitchell, B.A., Carlson, B.M. & Maier, A. (2023) Interocular normalization across the V1 laminar microcircuit. SfN

Lichtenfeld M.J., Carlson B.M., Mitchell B.A., Mendoza-Halliday D., Major A.J., Meng P.D., Xiong Y.S., Westerberg J.A., Desimone R., Miller E.K., Maier, A., Kaas J.H., Bastos A.M. (2022) the laminar distribution of inhibitory cell types of macaque cortex and its implications for hierarchical information processing. SfN FUN

Maier, A. (2022) Direct empirical support for the mathematical formalism of Integrated Information Theory. MoC3

Bastos, A.M., Mendoza-Halliday, D., Major, A., Lee, N., Lichtenfeld, M., Carlson, B.M., Mitchell, B.A., Meng, P.D., Xiong, Y., Westerberg, J.A., Kaas, J., Maier, A., Desimone, R., Miller, E. (2022) A preserved spectro-laminar motif of local field potential power across cortical areas maps onto histologically-identified layers. SfN

Westerberg, J.A., Maier, A., Schall, J.D. (2022) Priming alters cortical columnar attentional processing differently for targets vs. distractors in V4. SfN

Mitchell, B.A., Carlson, B.M., Cox, M.A., Maier, A. (2022). Ocular dominance is functionally relevant for binocular vision. SfN

Carlson, B.M, Mitchell, B.A., Westerberg, J.A., Maier, A. (2022) Interocular transfer of adaptation primarily modulates the infragranular layers of V1. SfN.

Westerberg, J.A., Herrera, B., Schall, M.S., Riera, J.J., Maier, A., Woodman, G.F., Schall, J.D. (2022) The neural basis for an EEG index of attention. UCLA Human Single Neuron Meeting

Westerberg, J.A., Schall, J.D., Maier, A. (2022) Evidence for bottom-up computation of pop-out in visual cortex which predicts behavior. VSS

Mitchell, B.A., Carlson, B.M., Dougherty, K., Westerberg, J.A., Cox, M.A., Maier, A. (2022) Interocular transfer across ocular dominance columns of primate V1. VSS

Carlson, B.M., Mitchell, B.A., Westerberg, J.A., Maier, A. (2022) Interocular transfer across ocular dominance columns of primate V1. VSS

Maier, A., Carlson, B.M, Westerberg, J.A., Tsuchiya, N. (2021) Cause-effect structures of cortical columnar activity. SfN.

Mitchell, B. et al. (2021) Dioptic stimulation transiently facilitates V1 spiking responses. SfN.

Westerberg, J.A. et al. (2021) Laminar profile of feature selectivity in V4 and its rhythmic enhancement with exogenous attention. SfN

Carlson, B. et al. (2021) V1 shows facilitation rather than suppression during onset of binocular rivalry flash suppression. SfN

Daumail, L. et al. (2021) Rapid visual adaptation of LGN neurons in the awake macaque monkey. SfN

Maier, A. (2021) Cortical Cause-Effect Structures. Models of Consciousness #2.

Carlson, B.M., Dougherty, K., Westerberg, J.A., Maier, A. & Cox, M.A. (2020) Stimulus History Affects Binocular Visual Processing in Primate Visual Cortex. Southeastern Vision Conference.

Westerberg, J.A., Schall, M.S., Maier, A., Schall, J.D. & Woodman, G.F. (2020) Cortical columns in area V4 produce the event-related potential index of attention. Southeastern Vision Conference.

Mitchell, B. A., Dougherty, K., Westerberg, J. A., Carlson, B. M., Daumail, L., Maier, A., & Cox, M. A. (2020). V1 Laminar Spiking Responses to Binocular Stimuli Predicted by Monocular Activity and Principles of Gain-control. Southeastern Vision Conference.

Daumail, L., Cox, M. A., Westerberg, J. A., Mitchell, B. A., Carlson, B. M., Johnson, C., Martin, P. R., Tong, F., Maier A., & Dougherty K. (2020). Rapid visual adaptation of LGN neurons. Southeastern Vision Conference.

Westerberg, J. A., Schall, M. S., Woodman, G. F., Maier, A., & Schall, J. D. (2020). Microcircuitry of Visual Attention: Laminar Dependencies of Attentional Selection, Priming, and the N2pc Generation in Area V4. Gordon Research Conference on the Neurobiology of Cognition.

Schall, M. S., Westerberg, J. A., Maier, A., Schall, J. D., & Woodman G. F. (2020). Laminar Origins of the N2pc Index of Visual Attention in Area V4. VSS.

Mitchell, B. A., Dougherty, K., Westerberg, J. A., Carlson, B. M., Daumail, L., Maier, A., & Cox, M. A. (2020). V1 Laminar Spiking Responses to Binocular Stimuli of Varying Contrast. VSS.

Daumail, L., Cox, M. A., Westerberg, J. A., Mitchell, B. A., Carlson, B. M., Johnson, C., Martin, P. R., Tong, F., Maier A., & Dougherty K. (2020). Sparse Adaptation Among LGN Neurons in the Awake Behaving Macaque. VSS.

Dougherty, K., Carlson, B.M., Cox, M.A., Westerberg, J.A., Schall, M.S., Turchi, J.N., Martin, P.R., Maier, A. (2019) Neural mechanisms of binocular convergence in the primate primary visual pathway. SfN

Carlson, B., Dougherty, K., Cox, M.A. & Maier, A. (2019) Spatiotemporal Evolution of V1 Laminar Activation to Dioptic and Dichoptic Stimulation. SfN

Schall, J.D., Westerberg, J.A. & Maier, A. (2019) Microcircuitry of visual attention: Attentional priming in area V4. SfN

Schall, M.S., Westerberg, J.A., Maier, A., Schall, J.D. & Woodman, G.F. (2019) Contribution of area V4 to the N2pc event-related potential index of attention. SfN

Westerberg, J.A., Maier, A. & Schall, J.D. (2019) Microcircuitry of visual attention: Laminar organization of attentional selection in area V4. SfN

Carlson, B., Cox, M.A., Dougherty, K. & Maier, A. (2019) V1 Laminar Activation during Binocular Rivalry Flash Suppression. VSS

Dougherty, K., Cox, M.A., Westerberg, J.A. & Maier, A. (2019) Binocular Modulation of Monocular Neurons in the Primary Visual Pathway. VSS

Westerberg, J.A., Woodman, G.F., Maier, A. & Schall, J.D. (2019) Performance Monitoring Signals During Visual Priming. VSS

Dougherty, K., Cox, M.A., Westerberg, J.A. & Maier, A. (2018) Monocular V1 neurons are sensitive to both eyes. SfN

Westerberg, J.A., Maier, A. & Schall, J.D. (2018) Visual Search Strategies: Priming of Pop-Out. SfN

Tovar, D.A., Westerberg, J.A., Cox, M.A., Dougherty, K., Carlson, T., Wallace, M.T. & Maier, A. (2018) Multivariate analysis of V1 spiking dynamics for ocularity, orientation, and repetition. SfN

Westerberg J.A., Cox, M.A., Dougherty, K. & Maier, A. (2018) Repetitive visual stimulation suppresses spiking responses across V1 laminae. VSS

Dougherty, K., Cox, M.A., Westerberg, J.A. & Maier, A. (2018) Laminar profile of V1 ocular dominance in the awake behaving primate. GRC

Dougherty, K., Cox, M.A., Westerberg J.A. & Maier, A. (2017) Interocular interactions in macaque LGN. VSS

Westerberg J.A., Cox, M.A., Dougherty, K. & Maier, A. (2017) Pre- versus Post-Stimulus Comparison of Correlated Spiking Variability across V1 Laminae. VSS

Westerberg J.A., Cox, M.A., Dougherty, K. & Maier, A. (2017) Layer-specific differences between spontaneous and visually evoked spiking correlations in V1. Cosyne

Maier, A. (2016) Parallel processing of surfaces and borders in early visual cortex. SfN (*symposium talk*)

Dougherty, K., Cox, M.A. & Maier, A. (2016) Interocular gain control in primate LGN. SfN

Cox, M.A., Dougherty, K., Maier, A. (2016) Interocular suppression across the layers of V1. SfN

Dougherty, K., Cox, M.A. & Maier, A. (2016) Binocular modulation of LGN responses in the primate. GRC

Cox, M.A., Dougherty, K., Maier, A. (2016) Interocular suppression in the input layers of V1. GRC

Dougherty, K., Cox, M.A., Leopold, D.A. Maier, A. (2015) Visual spiking responses in V1 couple to alpha fluctuations in deep layers. VSS [2015 VSS Student Travel Award]

Maier, A. (2014) Cross-frequency coupling in the cortical columnar microcircuit. [Symposium: Multimodal Investigation of Large-Scale Brain Dynamics: Combining fMRI and Intracranial EEG.] SfN

Ninomiya, T., Dougherty, K., Godlove, D.C., Schall, J.D. & Maier, A. (2014) Microcircuitry of agranular frontal and granular occipital cortex: Testing the generality of the canonical cortical microcircuit with cross-frequency phase-amplitude coupling during resting-state. SfN

Moore, B., Cox, M.A., Dougherty, K., Young, M.S. & Maier A. (2014) Resting state correlations in visual cortex reflect fluctuations of cortical arousal. SfN

Dougherty, K., Cox, M.A., Leopold, D.A. & Maier A. (2014) Spiking responses in primary visual cortex are coupled to the alpha phase of infragranular LFP. SfN [2014 FST Student Travel Award]

Cox, M.A., Leopold, D.A. & Maier, A. (2014) Sensory stimulation and attentional allocation evoke opposing patterns of columnar activation in primary visual cortex. SfN

Schmiedt, J.T., Maier, A., Saunders, R.C., Leopold, D.A. & Schmid, M.C. (2014) Low-frequency oscillations in extrastriate cortex: contributions of V1 and pulvinar. SfN

Kienitz, R., Cox, M.A., Schmiedt, J.T., Saunders, R.C., Leopold, D.A., Maier, A., Schmid, M.C. (2014) Neural rhythms during perceptual grouping in visual area V4 and their dependence on area V1 input. SfN

Shapcott, K., Schmiedt, J.T., Maier, A., Saunders, R.C., Leopold, D.A. & Schmid, M.C. (2014) Noise correlations in visual area V4 of the rhesus macaque after V1 lesion. SfN

Stanley, J., Maier, A., & Carter, O. (2014) The Role of Monocular Dominance in Rivalry Onset Bias. ASSC 18

Cox, M.A., Schmid, M.C., Peters, A., Saunders, R., Leopold, D.A. & Maier, A. (2014) Unexpected spatial sensitivity of neuronal response to illusory figures in area V4. VSS

Stanley, J., Forte, J., Maier, A. & Carter, O. (2014) The role of monocular dominance in rivalry onset bias. VSS

Maier, A. (2014) Anisotropy of neural coherence in primate visual cortex. German Primate Neurobiology Conference.

Shapcott, K.A., Schmiedt, J.T., Maier, A., Leopold, D.A. & Schmid, M. (2014) Neuronal Correlations in V1 after V4 injury. German Primate Neurobiology Conference.

Kienitz, R., Cox, M.A., Schmiedt, J.T., Saunders, R.C., Leopold, D.A., Maier, A. & Schmid, M. (2014) Perceptual grouping and theta oscillations in visual area V4. German Primate Neurobiology Conference.

Cox, M.A., Moore, B. Dougherty, K., Young, M.S. & Maier, A. (2013) LFP coherence as a function of laminar depth and lateral distance in macaque visual cortex. SfN

Dougherty, K., Cox, M.A., Leopold, D.A. & Maier, A. (2013) Visually evoked cross-frequency coupling between deep and superficial layers of macaque V1. SfN

Moore, B., Cox, M.A., Dougherty, K. Young, M.S. & Maier, A. (2013) Laminar profile of state-dependent visually evoked responses in primate visual cortex. SfN

Schmid, M. Schmiedt, J., Meyer, Saunders, R., Peters, A., Maier, A. & Leopold, D.A. (2013) V1-independent signal processing by V4 neurons. SfN

Ninomiya, T., Godlove, D.C., Dougherty, K. & Maier, A. & Schall, J.D. (2013) Laminar cross-frequency coupling in agranular frontal cortex. SfN

Guderian, S., Averbeck, B., Maier, A., Saunders, R.C. & Mishkin, M. (2013) Laminar profile of recognition memory processes in the perirhinal cortex of the rhesus monkey. SfN

Khandaker, H., Lowe, K., Tauhidul, L., Cox, M.A. & Maier, A. (2013) Contour Adaptation Does Not Survive Prolonged Absence of Visual Stimulation. 3rd Annual NIH ENDURE Meeting

Schmid, M., Schmiedt, J., Maier, A., Saunders, R., & Leopold, D.A. (2013) V1-independent signal processing by area V4 neurons. Bernstein conference, Tuebingen.

Schmiedt, J.T., Peters, A.J., Saunders, R.C., Maier, A., Leopold, D.A., Schmid, M.C. (2013) Blindsight: insights from neuronal responses in macaque V4 after V1 injury. ECVF

Chen, L.M., Maier, A., Mishra, A., Wang, F., Colvin, D.C., Newton, A.T., Young, M., Gore, J.C., Schall, J.D. (2013) Data-driven Parcellation of Resting State Functional Connectivity Networks of the Frontal Lobe in New World and Old World Primates. ISMRM

Maier, A. (2012) The cortical microcircuitry of conscious perception and selective attention. SfN [Symposium: The Neural Basis of Consciousness-Recent Advances and Breakthroughs]

Ghose, D., Maier, A., Barnett, Z.P. & Wallace, M.T. (2012) Superficial layers of the superior colliculus: purely visual or multisensory? SfN

Godlove, D.C., Maier, A., Woodman, G.F. & Schall, J.D. (2012) Laminar microcircuitry supporting error and reward processing in medial frontal cortex. SfN

Spaak, E., Bonnefond, M., Maier, A., Leopold, D.A. & Jensen, O. (2012) Layer-specific entrainment of gamma-band neural activity by the alpha rhythm in the monkey visual cortex. SfN

Maier, A., Chen, L., Mishra, A., Wang, F., Colvin, D.C., Newton, A.T., Young, M., Gore, J.C. & Schall, J.D. (2012) Resting state functional connectivity of the frontal and parietal lobe in new world and old world primates. SfN

Schmid, M, Peters, A., Schmiedt, J., Saunders, R., Maier, A. & Leopold, D.A. (2012) Organization of neural responses in macaque area V4 without input from V1. SfN

Spaak, E., Bonnefond, M., Maier, A., Leopold, D.A. & Jensen, O. (2012) Gamma power in superficial layers is coupled to the phase of alpha oscillation in deeper layers in monkey visual cortex. BIOMAG

- Jensen, M. & Maier, A. (2012) Multiple Realizability within the Neuronal Correlates of Consciousness. ASSC
- Cox, M.A., Schmid, M.C., Peters, A., Saunders, R., Leopold, D.A. & Maier, A., (2012) Neuronal representation of subjective shapes in primate area V4. VSS [2012 VSS student travel award]
- Maier, A., Cox, M.A., Reavis, E.A., Adams, G.K. & Leopold, D.A. (2011) Perceptual awareness and selective attention differentially modulate neuronal responses in primary visual cortex. SfN
- Cox, M.A., Schmid, M.C., Peters, A., Saunders, R., Leopold, D.A. & Maier, A., (2011) Single neuron and LFP responses to subjective shapes in area V4. SfN [2011 FST Student Travel Award]
- Spaak, E., Bonnefond, M., Maier, A., Leopold, D.A. & Jensen, O. (2011) Cross-Laminar Alpha/Gamma Interactions in Monkey V1. Champalimaud neuroscience symposium
- Cox, M.A., Maier, A., Schmid, M.C., Peters, A., Smith, K., Saunders, R., Mitz, A. & Leopold, D.A. (2011) Neural Correlates of Illusory Shape Perception in Primate Visual Cortex. APS
- Maier, A. (2011) From neurons to networks - the search for the neural correlate of consciousness in primate visual cortex. [Symposium: Computational and Theoretical Approaches to the Problem of Consciousness] Cosyne
- Maier, A. (2010) Activity in the primary visual cortex related to visual awareness. [Symposium: Neurophysiological approaches within the scientific study of consciousness] ASSC
- Maier, A. (2010) Selective attention and perceptual suppression independently modulate contrast change detection [Symposium: Dissociations between top-down attention and awareness] VSS
- Maier, A., Reavis, E., Adams, G., Leopold, D.A. (2009) Selective attention and perceptual suppression independently modulate contrast change detection. SFN
- Reavis, E., Leopold, D.A., Maier, A. (2009) Saccadic modulation of laminar field potentials in primate visual cortex. SFN
- Maier, A., (2009) Visual awareness correlates with layer-specific activity in primary visual cortex. [Symposium: Neural basis of consciousness] ECVF
- Maier, A.V., Adams, G.K., Aura, C., Leopold, D.A. (2009) Distinct laminar zones of coherent local field potentials in monkey V1. Cosyne
- Maier, A., Aura, C., Leopold, D.A. (2009) Visual awareness correlates with layer-specific activity in primary visual cortex. VSS
- Leopold, D.A., Wilke, M., Maier, A. (2008) Neural correlates of perception measured with fMRI and microelectrodes. Int. J. Psychophys. 69(3): 199-200 DOI: 10.1016/j.ijpsycho.2008.05.543
- Scholvinck, M., Ye, F.Q., Zhu, C., Maier, A., Duyn, J., Leopold, D.A. (2009) State-dependent, widespread correlation of neural and fMRI endogenous fluctuations in the awake monkey. ISMRM
- Maier, A.V., Adams, G.K., Aura, C., Leopold, D.A. (2008) Distinct laminar zones of coherent local field potentials in monkey V1. SFN
- Adams, G.K., Maier, A.V., Aura, C., Leopold, D.A. (2008) Endogenous fluctuations of LFP power in monkey V1 are compartmentalized into superficial and deep laminar zones. SFN
- Schölvinck, M.L., Maier, A.V., Ye, F., Zhu, C., Leopold, D.A. (2008) The neural basis of fMRI functional connectivity. SFN
- Tsuchiya, N., Maier, A.V., Logothetis, N.K., Leopold, D.A. (2008) Decoding kinetic depth using only the temporal structure of spike trains from area MT. SFN

Leopold, D.A., Aura, C., Maier, A.V. (2008) Laminar analysis of local field and current source density during physical and perceptual events in monkey V1. SFN

Maier, A., Wilke, M., Aura, C., Zhu, C., Ye, F., Leopold, D.A. (2008) What happens in primary visual cortex when a stimulus becomes visible? Insights from fMRI and layer-specific neurophysiology in non-human primates. 31st Annual Meeting of the Japan Neuroscience Society

Tsuchiya, N., Maier, A., Logothetis, N.K., Leopold, D.A. (2008) Decoding monkey's conscious experience during ambiguous and unambiguous motion percept reveals initial non-conscious spike activity and later neuronal correlates of consciousness in area MT. ASSC 12.

Maier, A., Aura, C., Leopold, D.A. (2008) Visual awareness correlates with layer-specific activity in visual cortex. ASSC 12

Tsuchiya, N., Maier, A., Logothetis, N.K., Leopold, D.A. (2008) Decoding monkey's conscious experience during ambiguous and unambiguous motion percept reveals initial non-conscious spike activity and later neuronal correlates of consciousness in area MT. Toward a Science of Consciousness. 8th biennial Tucson conference.

Maier, A., Wilke, M. Aura, C., Zhu, C., Ye, F. & Leopold, D.A. (2007) Stimulus invisibility uncouples the fMRI BOLD response from neuronal spiking activity in V1. ASSC 11

Liang, H., Wang, Z., Leopold, D.A., Maier, A. (2007) Optimal spatio-temporal pooling of neural responses in area MT. CNS

Wang, Z., Maier, A., Leopold, D.A., Liang, H. (2007) Spatiotemporal Integration of Neuronal Activity for Single-Trial Classifications of Bistable Perception. IJCNN

Zhu, C., Maier, A., Ye, F.Q., Leopold, D.A. (2007) High resolution RF coil insert for electrophysiological recording chambers. ISMRM

Maier, A., Wilke, M., Aura, C., Zhu, C., Ye, F.Q., Leopold, D.A. (2006) Stimulus invisibility uncouples BOLD from neuronal responses in monkey primary visual cortex. Soc. Neurosci. Abstr. Online.

Aura, C., Maier, A., Leopold, D.A. (2006) Investigation of state-dependent differences of neuronal activity across cortical layers in monkey visual cortex. Soc. Neurosci. Abstr. Online.

Wang, Z., Maier, A., Logothetis, N.K., Leopold, D.A., Liang, H. (2006) Neural population activity in area MT improves determination of perceptual states. Soc. Neurosci. Abstr. Online

Liang, H., Wang, X., Z. Wang, Logothetis, N.K., Leopold, D.A., Maier, A. (2006) A comparison of local field potentials and spiking activity to predict perceptual report during bistable visual stimulation. Soc. Neurosci. Abstr.

Wang, Z., Maier, A., Logothetis, N.K., Leopold, D.A., Liang, H. (2006) Neural population activity in area MT improves determination of perceptual states. 2nd Annual Conference on Computational Cognitive Neuroscience

Liang, H., Wang, X., Z. Wang, Logothetis, N.K., Leopold, D.A., Maier, A. (2006) A comparison of local field potentials and spiking activity to predict perceptual report during bistable visual stimulation. 2nd Annual Conference on Computational Cognitive Neuroscience

Leopold D. A., Wilke M., Maier A. (2006) What processes in the brain make a stimulus visible? Neural correlates of consciousness: new trends and data. Abstract A027.3, FENS Forum Abstracts, vol. 3, 2006.

Maier, A., Logothetis, N.K. & Leopold, D.A. (2005) Percept-related fluctuations of MT local field potentials. Soc. Neurosci. Abstr. Online.

Moutoussis, K., Maier, A., Zeki, S., Logothetis, N. (2005) Seeing invisible motion: Responses of area V5 neurons on the awake-behaving macaque. Soc. Neurosci. Abstr. Online.

Maier, A., Wilke, M.,(2005) Investigating Neuronal Correlates of Conscious Visual Perception. [Tutorial]. ASSC 9.

Maier, A., Wilke, M., N.K. Logothetis, D.A. Leopold. (2005) Perceptual and neuronal dynamics of binocular rivalry flash suppression. *Journal of Vision* 5(8), Abstract 12, Page 12a.

Maier, A., N.K. Logothetis, D.A. Leopold. (2003) A comparison of perception-related activity in the visual cortex using different ambiguous patterns. Program No. 550.2 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2003. Online.

Maier, A., Logothetis, N.K., Leopold, D.A. (2003) Competition and integration in monocular rivalry. *Perception* 32:115 (Suppl.)

Maier, A., Leopold, D.A. and Logothetis, N.K. (2002) Neural activity during stable perception of ambiguous displays in monkey visual cortex. Program No. 161.13 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, 2002. Online.

Wilke, M., Maier, A., Leopold, D.A., Ghazanfar, A., Logothetis, N.K., Periods of stimulus absence stabilize the perception of ambiguous patterns, Soc. Neurosci. Abstr., Vol. 27, Program No. 165.16, 2001

Maier, A., Wilke, M., Leopold, D.A., Treue, S., Logothetis, N.K., Parallel perception of multiple visually bistable patterns, Soc. Neurosci. Abstr., Vol. 27, Program No. 165.15, 2001