

Anthony M. Norcia

Professor (Research)
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Curriculum Vitae

Education

B.A. Psychology, University of Minnesota, 1975
Ph.D. Physiological Psychology, Stanford University, 1981
NIMH Post-Doctoral Fellow, Brown University, 1981

Professional Experience

2010-present	Professor (Research), Department of Psychology, Stanford University, Stanford
1993-2010	Senior Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco
1986-1992	Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco
1984-1986	Associate Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco
1982-1984	Research Psychologist, The Smith-Kettlewell Eye Research Institute, San Francisco
1980-1981	National Institute of Mental Health Post-Doctoral Trainee, Brown University, RI
1976-1980	Research Assistant, Department of Psychology, Stanford University, Stanford
1975-1976	Senior Laboratory Technician, Institute of Child Development, U. of Minnesota

Research Interests

My work centers around two overarching themes: the relationship between neural activity and conscious visual perception, and the role that visual experience plays in determining the course of visual development. I focus on early and mid-level visual processes that underlie the perception of objects and the layout of surfaces in the environment.

Advisory Panels

2015-2016	President, Vision Sciences Society
2012-present	Board of Directors, Vision Sciences Society
2008-present	Trustee, Vision4Children Foundation, Liverpool, UK
2006-2007	Sensory, Motor and Cognitive Neuroscience Fellowship Study Section, NIH
1990-1994	Visual Sciences (B) Study Section, National Eye Institute, NIH

Program Committees

2001-present	Vision Sciences Society Program Review Board
2007	Organizing Committee, European Society for Visual Perception Meeting, Arezzo, Italy

1995-1999 Chair, Vision Technical Group, Optical Society of America
1987-1989 Non-Invasive Assessment of the Visual System Topical Meeting, Optical Society of America

Honors

Trimble Medalist, British Isles Paediatric Ophthalmology Association, 2016
Association for Research in Vision and Ophthalmology, Inaugural Fellow, 2009
Research to Prevent Blindness Walt and Lilly Disney Award for Amblyopia, 2008
Edridge Green Lecturer, Royal College of Ophthalmology, Liverpool, May 2008
Catherine Doyle Kettlewell Chair of Research in Visual Science, 2000
William A. Kettlewell Chair of Research in Visual Science, 1992

Editorial Boards

2007-2015 Journal of Vision
2002-2015 Vision Research
1998-2002 Visual Neuroscience

Recent Journal Paper Reviews

Brain Research, British Journal of Ophthalmology, Experimental Brain Research, IEEE Transactions on Biomedical Engineering, Investigative Ophthalmology and Visual Science, Journal of the American Association of Pediatric Ophthalmology and Strabismus, Journal of Cognitive Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of Physiology, Journal of Vision, Nature Neuroscience, NeuroImage, Pediatric Research, Proceedings of the National Academy of Sciences, Science, Vision Research, Visual Neuroscience

Recent Ad Hoc Grant Reviewing

Bi-national Science Foundation, Israel
Canadian Institute of Health Research
National Science Foundation
National Eye Institute
Netherlands Organisation for Scientific Research, Social Sciences
The Wellcome Trust, United Kingdom

Service to Stanford University

2012-2015 Committee on Research
2010-present Advisory Board for Center for Cognitive and Neurobiological Imaging

Service to Psychology Department

2011-present Design and management of Psychology Department shared EEG Laboratory
2013 Curriculum Committee

Teaching Contributions

Guest Lectures in Bio-Engineering 301C, Diagnostic Devices, Psychology 205 Cognitive Neuroscience, Psychology 60, Developmental Psychology.

Mentoring of Career Development Awardees

Jonathan Winawer (2013-present) Ph.D. 2007 Massachusetts Institute of Technology, Postdoc Stanford Psychology: 2007-2013. Current Position: Department of Psychology, New York University. NIH K99 Awardee: Multimodal imaging of spatiotemporal integration in the human visual system.

Jeffrey Tsai (2010-2015), MSEE, MD, Ph.D. 1994/2003/2001 Cornell University. Post-doc Smith-Kettlewell Eye Research Institute: 2008-2010. Current Position: Assistant Professor, Department of Neurology, University of Washington, Seattle, WA. NIH K23 Awardee: A multimodal imaging approach to understanding neural hyperexcitability.

William V. Good (1998-2003) MD University of Cincinnati, 1977. Current Position: Senior Scientist, The Smith-Kettlewell Eye Research Institute, San Francisco. NIH K23 Award: Pediatric Low Vision

Current post-doctoral fellows

Elham Barzegaran (2018- present), Ph.D. University of Lausanne. Cortical connectivity.
Peter Kohler (2013 – present), Ph.D. 2013 Dartmouth University. Perception of image structure.

Current graduate students

Nathan Kong (2017-present) Graduate Student, Department of Psychology, Stanford University.

Yiran Duan (2013-present), Graduate Student, Department of Psychology, Stanford University.

Guillaume Riesen (2015-present), Graduate Student, Neuroscience Program, Stanford University.

Past post-doctoral fellows and graduate students

Nihan Alp (2016-2017), Visiting Graduate Student, Department of Psychology, University of Leuven, Belgium.

Francesca Pei (2011- 2016), Ph.D. 2006 University of Pisa, Italy. Visual system anomalies in Autism Spectrum Disorders and Epilepsy.

Holly Gerhard (2014- 2016), Ph.D. 2010 New York University. Development of binocular vision. Current Position: Research Scientist, Apple Computer.

Jacek Dmochowski (2013 – 2015), Ph.D. 2008 Universite du Quebec. Electromagnetic source-imaging, brain stimulation, perceptual decision-making. Current Position: Assistant Professor, City College of New York.

Emily A. Cooper (2013 – 2014), Ph.D. 2012 University of California, Berkeley. Depth perception. Current Position: Assistant Research Professor. Dartmouth College.

Justin Ales (2007-2013), Ph.D. 2007 University of California, Berkeley. EEG source localization, non-linear analysis of the visual system. Current Position: Assistant Professor, St. Andrew's University, Scotland.

Faraz Farzin (2010-2013), Ph.D. 2010 University of California, Davis. Visual system development. Current Position: Director, Children's programming, Netflix, Inc.

Benoit Cottureau, (2009-2012), Ph.D. 2008 University of Paris VI. EEG/MEG source localization, binocular vision. Current Position: Tenured Researcher, CNRS Toulouse, France.

Jeffrey Tsai (2008-2010), MSEE, MD, PhD. 1994/2003/2001 Cornell University. Visual system anomalies in epilepsy, functional connectivity measures for EEG/MEG, top-down control. Current Position: Assistant Professor, Department of Neurology, University of Washington, Seattle, WA.

Melanie Palomares (2006-2009), Ph.D. 2006 Johns Hopkins University. Imaging and visual development. Current Position: Instructor, Department of Psychology, University of South Carolina, Columbia, SC.

Lawrence G. Appelbaum (2005-2006), Ph.D. 2005 University of California, Irvine. Computational Neuroimaging. Current Position: Assistant Professor, Department of Psychiatry, Duke University.

Sean I. Chen (2003-2006), Ph.D. 2006 University of Liverpool. Fellow of the Royal College of Ophthalmologists (2000). Visual Development in Amblyopia (Thesis Advisor). Current Position: Consultant Ophthalmologist, Galway, Ireland.

Giuseppe Mirabella (2002-2004), Ph.D. 2001 University of Toronto. Development of Visual Mechanisms in Infants. Current Position: Clinical Psychologist, Toronto, Ontario, Canada.

T. Rowan Candy (1997-2000), Ph.D. 1997 University of California Berkeley. Development of human form and motion mechanisms. Current Position: Associate Professor, School of Optometry, Indiana University, Bloomington, IN.

Ann Skoczenski (1996-1999), Ph.D. 1992 University of Rochester. Development of human form and motion mechanisms. Current Position; Human Resources Ombudsman, Harvard University.

Rick J. Brown (1996-1998), Ph.D. 1995 Emory University. Development of binocular rivalry in infants. Current Position: Professor, Psychology, Citrus College, Glendora, CA.

Uri Polat (1993-1996), Ph.D. 1993 Weizmann Institute of Science, Rehovot, Israel. Long-range interaction in visual cortex. Current Position: Professor, Goldschelger Eye Institute, Faculty of Medicine, Tel Aviv University.

David H. Peterzell (1992-1994), Ph.D. 1991 University of Colorado. Spatial mechanisms in human vision. Current Position: Lecturer, Department of Psychology, University of California, San Diego.

Wolfgang Wesemann (1987-1989), Ph.D. 1986 University of Hamburg. Visual optics and cortical physiology. Current Position: Director, Hoehere Fachshule fur Augenlinik (School of Optometry), Cologne, Germany.

Deborah Orel-Bixler (1983-1984), Ph.D. 1984 University of California, Berkeley. Spatial vision in amblyopia and infants (Research Assistant, Thesis Advisor). Current Position: Professor of Clinical Optometry, University of California, Berkeley.

Dale Allen (1982-1984), Ph.D. 1984 University of California, Berkeley. Development of chromatic mechanisms in infants. (Research Assistant, Thesis Advisor) Deceased.

Other Graduate Student Advising

Ph.D. Thesis committees

Jesse Gomez, Department of Psychology, Primary Advisor, Kalanit Grill-Spector

Anthony Stigliani, Department of Psychology, Primary Advisor, Kalanit Grill-Spector

Cameron MacKenzie, Department of Psychology, Primary Advisor, Justin Gardner

Alexander Gonzales, Ph.D. Electrical Engineering (2016), Primary Advisor: Anthony Wagner

Blair Kaneshiro, Ph.D. Music (2016), Primary Advisor: Jonathan Berger

Sergey Stavisky, Ph.D. (2015) Neuroscience Program, Primary Advisor: Krishna Shenoy

Jason Yeatman, Ph.D. Stanford Psychology (2014), Primary Advisor: Brian Wandell

Allen Gordon, Ph.D. Stanford Psychology (2014), Primary Advisor: Anthony Wagner

Cynthia Henderson, Ph.D. Stanford Psychology (2014), Primary Advisor: Jay McClelland

Sharareh Noorbaloochi, Ph.D. Stanford Electrical Engineering (2013), Primary Advisor: Jay McClelland

Michael Lim, Ph.D. Stanford Statistics (2013), Primary Advisor: Trevor Hastie

Jennifer Yoon, Ph.D. Stanford Psychology (2012), Primary Advisor: Ellen Markman

Esther Alonso-Prieta Ph.D. (2011) Department of Psychology, Catholic University of Louvain, Belgium.
Primary Advisor: Bruno Rossion

Ph.D. qualifying committees

Guillaume Reisen, Neuroscience Program

Blair Kanishiro, Department of Music, Primary Advisor: Jonathan Berger

Sergey Stavisky, Neuroscience Program, Primary Advisor: Krishna Shenoy

Benjamin Naecker, Neuroscience Program, Primary Advisor: Stephen Bacchus

Joan Liu-Shuang, Department of Psychology, Catholic University of Louvain, Belgium. Primary Advisor:
Bruno Rossion

Research Support

1R56MH111672-01A1

07/01/2017-06/30/2022

National Institutes of Health/National Institute of Mental Health

Multi-modal study of cognitive and neural differences in media multi-taskers

The goal of the study is to use a combination of neuro-imaging, electrophysiological and behavior methods to understand how media-multitasking affects attention, memory and learning.

Role: Co-I Anthony Wagner PI

1 R21 EY026748-01A1

03/01/17-02/28/19

National Institutes of Health/National Eye Institute

Non-invasive brain stimulation approaches to visual system modeling and plasticity

The goals of this project are to determine the mode of action of transcranial electrical stimulation using functional MRI and EEG methods and to develop methods for modulating visual sensitivity.

Role: PI

Interdisciplinary Innovation Proposal

10/01/16-09/30/2018

Bio-X, Stanford University

Scalable Instrumentation for Electrical Brain Stimulation and Neural Recording

The goal of this project is to develop hardware and software for simultaneous non-invasive electrical stimulation of cortex and EEG recording.

Role: PI

Stanford #127588)

01/16/2017-07/15/2018

The Smith-Kettlewell Eye Research Institute

Steady-state Visual Evoked Potentials for Clinical Research

The goal of this project is the development of new visual stimulation protocols for vision research that are based on Visual Evoked Potentials. The development includes the conceptual design of protocols as well as instrumentation and software development.

Role: PI

Pending Support

2R01EY018875

07/01/2018-06/30/2022

National Institutes of Health/National Eye Institute

Disparity Processing in Human Visual Cortex

The goals of this project are to determine developmental sequences for human stereopsis and to use a combination of EEG and fMRI approaches in adults to understand the cortical basis of stereopsis in human.

Role: PI

1 RO1 EY027412-01

07/01/2018-06/30/2022

National Institutes of Health/National Eye Institute

Development of the human ventral stream

The goals of this project are to study how the nature of object representations in human visual cortex changes from infancy to adulthood.

Role: PI

Recently Completed Research Support

1R21MH104774-01A1

07/15/15-03/31/17

National Institutes of Health/National Institute of Mental Health

Quantitative measurements of cortical excitability in neurodevelopmental disorders

The goal of this project is to compare cortical responses to visual and auditory stimuli in children with Autism Spectrum Disorder and Attention Deficit Hyperactivity Disorder to those of age and sex-matched neurotypical children, with the goal being a determination of patterns of cortical excitability that may contribute to and distinguish these developmental disorders.

Role: Co-PI

Sony Corporation Contract

12/21/2012-03/31/2017

Sony Corporation

Creating and Measuring Compelling Immersive Experience in Video Displays

The goals of this project are to develop image enhancement algorithms for immersive visual displays and to develop EEG-based methods for evaluating perceived immersion and video quality.

Role: PI

2R01EY018875

03/01/2012-02/28/2017

National Institutes of Health/National Eye Institute

Disparity Processing in Human Visual Cortex

The goals of this project are to examine the flow of disparity information from V1 to extrastriate areas in human cortex using a novel neuro-imaging technique, to determine the source of the velocity signal for vergence eye movements and to study the development of motion and disparity interactions in infants.

Role: PI

R01 EY015790-03

09/01/11-08/31/16

National Institutes of Health/National Eye Institute

Form and Motion Integration

This project studies the integration of local estimates of motion direction and orientation into global patterns of optic flow using EEG and fMRI. Integration mechanisms will be studied in normal adults and in adults with amblyopia, focusing on processing mechanisms and the role of visual attention in modulating sensitivity. The normal development of these integration mechanisms will also be studied in human infants.

Role: PI

4740-SU-NSF-8076

10/1/12-09/30/16

National Science Foundation

Symmetry group-based regularity perception in human and computer vision

The goal of this project is to study brain and perceptual mechanisms responsible for the detection of regularity and symmetry in visual images using a theoretical framework derived from group theory.

Role: Co-PI

Simons Foundation, Autism Research Initiative

10/01/2010-09/30/2013

Canonical neural computation in Autism Spectrum Disorder

The goal of this project is to use Visual Evoked Potentials to study cortical responses in persons diagnosed with Autism Spectrum Disorder and to identify possible underlying cortical circuit abnormalities.

Role: Co-PI

Peer-Reviewed Publications

Duan K, Yakovleva A, Norcia, AM (in press) Determinants of neural responses to disparity in natural scenes. *Journal of Vision*.

Padmanaban N, Ruban T, Sitzman V, Norcia AM, Wetzstein G (2018) Towards a Machine-Learning Approach for Sickness Prediction in 360° Stereoscopic Videos. *IEEE Trans Vis Comput Graph*. 24(4):1594-1603.

Kohler PJ, Cottureau BR, Norcia AM (2018) Dynamics of perceptual decisions about symmetry in human visual cortex. *NeuroImage* 167: 316-330.

Kanayet FJ, Mattarella-Micke A, Kohler PJ, Norcia AM, McCandliss BD, McClelland JL. (2017) Distinct Representations of Magnitude and Spatial Position within Parietal Cortex during Number-Space

Mapping. *Journal of Cognitive Neuroscience*, Oct 17:1-19. doi: 10.1162/jocn_a_01199. [Epub ahead of print] PubMed PMID: 29040015.

Lim M, Ales JM, Cottareau BR, Hastie T, Norcia AM. Sparse EEG/MEG source estimation via a group lasso. (2017) *PLoS One*. 12(6) PubMed PMID: 28604790; PubMedCentral PMCID: PMC5467834.

Norcia AM, Pei F, Kohler PJ. (2017) Evidence for long-range spatiotemporal interactions in infant and adult visual cortex. *Journal of Vision*. Jun 1;17(6):12. doi: 10.1167/17.6.12. PubMed PMID: 28622700; PubMed Central PMCID: PMC5477630.

Norcia AM, Gerhard HE, Meredith WJ. (2017) Development of Relative Disparity Sensitivity in Human Visual Cortex. *J Neuroscience* ;37(23):5608-5619. doi: 10.1523/JNEUROSCI.3570-16.2017. Epub 2017 May 4. PubMed PMID: 28473649; PubMed Central PMCID: PMC5469301.

Dmochowski JP, Koessler L, Norcia AM, Bikson M, Parra LC. Optimal use of EEG recordings to target active brain areas with transcranial electrical stimulation. *Neuroimage*. (2017) 57:69-80.

Pei F, Baldassi S, Tsai SJ, Gerhard HE, Norcia AM. (2017) Development of contrast normalization mechanisms during childhood and adolescence. *Vision Res*. Apr;133:12-20. doi: 10.1016/j.visres.2016.03.010. Epub 2017 Feb 17

Koessler L, Colnat-Coulbois S, Cecchin T, Hofmanis J, Dmochowski JP, Norcia AM, Maillard LG. (2016) In-vivo measurements of human brain tissue conductivity using focal electrical current injection through intracerebral multicontact electrodes. *Hum Brain Mapp*. 10.1002/hbm.23431. [Epub ahead of print] PubMed PMID: 27726249.

Yeatman JD, Norcia AM. Temporal Tuning of Word- and Face-selective Cortex. (2016) *J Cogn Neurosci*. 11:1820-1827. PubMed PMID: 27378330.

Turner BM, Rodriguez CA, Norcia AM, McClure SM, Steyvers M. (2016) Why more is better: Simultaneous modeling of EEG, fMRI and behavioral data. *Neuroimage*, 128:96-115.

Kohler P, Clarke A, Yakovleva A, Liu Y, Norcia AM (2016) Representation of maximally regular textures in human visual cortex. *J Neuroscience*. 36(3):714-29, PubMed PMID: 26791203.

Norcia AM, Appelbaum LG, Ales JM, Cottareau BR, Rossion B. The steady-state visual evoked potential in vision research: A review. *J Vis*. 2015;15(6):4. doi:10.1167/15.6.4. Review. PubMed PMID: 26024451; PubMed Central PMCID: PMC4581566.

Norcia AM, Gerhard HE (2015) Development of three-dimensional perception in human infants. *Ann Rev Vision Science*, 1, 569-594.

Dmochowski J, Norcia AM (2015) Cortical components of reaction-time during perceptual decisions in humans. *PLoS ONE*. 10(11): e0143339. Doi: 10.13171. PMID: 26599741. PMCID: PMC4658144.

Duan Y, Norcia AM, Yeatman JD, Mezer A. (2015) The Structural Properties of Major White Matter Tracts in Strabismic Amblyopia. *Invest Ophthalmol Vis Sci*.,56(9):5152-60. doi: 10.1167/iovs.15-17097. PubMed PMID: 26241402; PubMed Central PMCID: PMC4525637.

- Cooper EA, Norcia AM. (2015) Predicting cortical dark/bright asymmetries from natural image statistics and early visual transforms. *PLoS Comput Biol.*, 28, 11(5):e1004268. doi: 10.1371/journal.pcbi.1004268. PubMed PMID: 26020624; PubMed Central PMCID: PMC4447361.
- Kaneshiro B, Perreau Guimaraes M, Kim HS, Norcia AM, Suppes P. A (2015) Representational Similarity Analysis of the Dynamics of Object Processing Using Single-Trial EEG Classification. *PLoS ONE*. 21;10(8): e0135697. PubMed PMID: 26295970; PubMed Central PMCID: PMC4546653.
- Dmochowski JP, Greaves AS, Norcia AM (2015) Maximally reliable spatial filtering of steady state visual evoked potentials. *NeuroImage*, 109, 63-72.
- Liu-Shuang J, Ales JM, Rossion B, Norcia AM (2015) Separable effects of inversion and contrast-reversal on face detection and response functions: a sweep VEP study. *Journal of Vision*, 15(2).
- Liu-Shuang J, Ales JM, Rossion B, Norcia AM (2015) The effect of contrast polarity reversal on face detection: evidence of perceptual asymmetry from sweep VEP. *Vision Research*, 108 8-19.
- Hou C, Norcia AM, Good WV (2014) Visuocortical function in infants with a history of neonatal jaundice. *Invest Ophthal Vis Sci*. 55(10), 6443-6449. PMID: 25183760; PCMID: PMC4197714.
- Cottareau BR, Ales JM Norcia AM (2015) How to use fMRI functional localizers to improve EEG/MEG source estimation. *J. Neuroscience Methods*, 250:64-73. PMC438372.
- Boremanse A, Norcia AM, Rossion B (2014) Dissociation of part-based and integrated neural responses to faces by means of EEG frequency-tagging. *European J Neuroscience*, 40, 2987:2907.
- Cooper, EA, Norcia AM (2014) Perceived depth in natural images reflects encoding of low-level luminance statistics. *J. Neuroscience*, 34, 11761-11768.
- Hou C, Norcia AM (2014) Acuity-independent effects of visual deprivation on human visual cortex. *Proceedings National Academy Sciences*, 111, 120-128.
- Pei F, Balsdassi S, Norcia AM (2014) Electrophysiological measures of low-level vision reveal spatial processing deficits and hemispheric asymmetry in Autism Spectrum Disorder. *Journal of Vision*, 14(3), 1-12.
- Cottareau BR, Ales JM, Norcia AM (2014) The evolution of a disparity decision in human visual cortex. *NeuroImage*. 92:193-206. PubMed PMID: 24513152.
- Clark DA, Fitzgerald JE, Ales JM, Gohl DM, Silies MA, Norcia AM, Clandinin TR (2014) Flies and humans share a motion estimation strategy that exploits natural scene statistics. *Nature Neuroscience*. 17: 292-303. PMC3993001.
- Liu-Shuang J, Norcia AM, Rossion B (2014) An objective index of individual face discrimination in the right occipito-temporal cortex by means of fast periodic oddball stimulation. *Neuropsychologia* 52:57-72.

- Cottareau BR, McKee SP, Norcia AM (2014) Dynamics and cortical distribution of neural responses to 2D and 3D motion in human. *J. Neurophysiology*. 111(3): 533-43. PubMed PMID: 24198326; PubMed Central PMCID: PMC3921412.
- Norcia AM (2013) Linking perception to neural activity as measured by Visual Evoked Potentials. *Visual Neuroscience*. 24:1-5.
- Cooper EA, Jiang H, Vildavski V, Farrell J, Norcia AM (2013) Assessment of OLED displays for vision Research. *Journal of Vision*, Oct 23;13(12):16. doi: 10.1167/13.12.16. PMC3807585.
- Boremanse A, Norcia AM, Rossion B (2013) An objective signature for visual binding of face parts in the human brain. *Journal of Vision*. Sep 10;13(11). doi:pii: 6. 10.1167/13.11.6. PubMed PMID: 24023273.
- Alonso-Prieto E, Belle GV, Liu-Shuang J, Norcia AM, Rossion B (2013) The 6Hz fundamental stimulation frequency rate for individual face discrimination in the right occipito-temporal cortex. *Neuropsychologia*. [Epub ahead of print] PubMed PMID: 24007879.
- Ales JM, Appelbaum LG Cottareau BT Norcia AM (2013) The time course of shape discrimination in the human brain. *NeuroImage*. 67: 77-88.
- Farzin F, Hou C, Norcia AM (2012) Piecing it together: infants' neural responses to face and object image structure. *Journal of Vision*. Dec 6;12(13):6. doi: 10.1167/12.13.6.
- Good WV, Hou C, Norcia AM (2012) Spatial contrast sensitivity vision loss in children with cortical visual impairment. *Invest Ophthalmol Vis Sci*. Oct 11. [Epub ahead of print] PubMed PMID: 23060143.
- Ales JM, Farzin, F, Rossion, B, Norcia AM (2012) An objective method for measuring face detection thresholds using the sweep steady-state visual evoked response. *Journal of Vision*. Sep 29;12(10). doi:pii: 18. 10.1167/12.10.18. PubMed PMID: 23024355.
- Palomares MC, Ales JM, Wade AR, Cottareau BT, Norcia AM (2012) Distinct effects of attention on the neural responses to form and motion processing: a SSVEP source-imaging study. *Journal of Vision*. Sep 26;12(10). doi:pii: 15. 10.1167/12.10.15. PMC4504152.
- Ales JM, Yates JY, Norcia AM (2012) On determining the intracranial sources of Visual Evoked Potentials: A reply to Kelly et al. (this issue). *NeuroImage*. 64C: 703-711. PubMed PMID: 22982584.
- Cottareau BR, Ales JM, Norcia AM (2012) Increasing the accuracy of EEG/MEG cortical reconstructions using functional area source correlation constraints. *Human Brain Mapping*. 33(11): 2694-713. PMC3637966.
- Appelbaum LG, Ales JM, Norcia AM. (2012) The time course of segmentation and cue-selectivity in the human visual cortex. *PLoS One*. 7(3): e34205. Epub 2012 Mar 27. PubMed PMID: 22479566; PubMed Central PMCID: PMC3313990.

- Cottareau BR, McKee SP, Ales JM, Norcia AM (2012) Disparity-specific spatial interactions: evidence from EEG Source-Imaging. *J. Neuroscience*. 32:826-840. PMID: 22262881 [PubMed - in process]
- Cottareau BR, McKee SP, Norcia AM (2012) Bridging the gap: global disparity processing in the human visual cortex. *J. Neurophysiology*. May;107(9):2421-9. Epub 2012 Feb 8. PubMed PMID: 22323636; PubMed Central PMCID: PMC3362244.
- Madan A, Norcia AM, Hou C, Pettet MW, Good WV (2012) Effect of Grade I and II Intraventricular Hemorrhage on Visuocortical Function in Very Low Birth Weight Infants. *Seeing and Perceiving*. PubMed PMID: 22371027.
- Tsai JJ, Wade AR, Norcia AM (2012) Dynamics of normalization underlying masking in human visual cortex. *J. Neuroscience*. 32(8):2783-2789. PMID: 22357861.
- Baker TJ, Norcia AM, Candy TR (2011) Orientation tuning in the visual cortex of 3-month-old human infants. *Vision Research*. 51:470-478.
- Cottareau BR, McKee SP, Ales JM, Norcia AM (2011) Disparity-tuned population responses from human visual cortex. *J. Neuroscience*. 31:954-965.
- Farzin F, Norcia AM (2011) Impaired visual decision-making in individuals with amblyopia. *Journal of Vision*. Dec 6; 11(14). PMID:22147222.
- Fesi JD, Yannes MP, Brinckman DD, Norcia AM, Ales JM, Gilmore RO (2011) Distinct cortical responses to 2D figures defined by motion contrast. *Vision Research*. 51: 2110-2120. PMID: 21820002.
- Hou C, Norcia AM, Madan A, Tith S, Agarwal R Good WV (2011) Visual cortical function in very low birth weight infants without retinal or cerebral pathology. *Invest Ophthal Vis Sci*. 25: 9091-9098. PMID: 22025567
- Tsai JJ, Norcia AM, Ales JM, Wade AR (2011) Contrast gain control abnormalities in idiopathic generalized epilepsy. *Annals Neurology*. [Epub ahead of print] PMID: 2171062
- Ales JM, Yates JL, Norcia AM. (2010) V1 is not uniquely identified by polarity reversals of responses to upper and lower field stimuli. *NeuroImage*. 52: 1401-1409. PMC2922686.
- Appelbaum LG, Ales JM, Cottareau, BR, Norcia AM. (2010) Configural specificity of lateral occipital cortex. *Neuropsychologia*, 48: 3323-3328.
- Glass HC, Berman JI, Norcia AM, Rogers EE, Henry RG, Hou C, Barkovitch AJ, Good WV. (2010) Quantitative fiber tracking of the optic radiation is correlated with Visual-Evoked Potential amplitude in preterm infants. *American J Neuroradiology*. 31: 1424-1429.
- Palomares, M, Pettet MW, Vildavski VY, Hou C, Norcia AM. (2010) Connecting the dots: how local structure affects global integration in infants. *J. Cognitive Neuroscience*. 22: 1557-1569.

- Appelbaum LG, Norcia AM. (2009) Attentive and pre-attentive aspects of figural processing. *Journal of Vision*. 19;9(11):18.1-12.
- Ales JM, Norcia AM. (2009) Assessing direction-specific adaptation using the steady-state visual evoked potential: results from EEG source imaging. *Journal of Vision*, **9**: 1-13.
- Good WV, Hou C, Frieden IJ, Norcia AM. (2009) Evidence for visual compromise in preverbal children with orbital vascular birthmarks. *American J Ophthalmol*. **147**: 679-682.
- Hou C, Gilmore, RO, Pettet MW Norcia AM. (2009) Spatio-temporal tuning of coherent motion evoked responses in 4-6 month-old infants and adults. *Vision Research*. **49**: 2509-2517.
- Norcia AM, Hale J, Pettet MW, McKee, SP, Harrad, RA. (2009) Disparity tuning of binocular facilitation and suppression after normal versus abnormal visual development. *Invest Ophthal Vis Sci*. **50**: 1168-1175.
- Sterkin A, Yehezkel, O, Bonne, YS, Norcia A, Polat U. (2009) Backward masking suppresses collinear facilitation in the visual cortex. *Vision Research*, **49**:1784-1794.
- Hamer RD, Norcia AM. (2009) The Jitter Spatial Frequency Sweep VEP: A new paradigm to study spatiotemporal development of pattern- and motion- processing mechanisms in human infants. *Psychology & Neuroscience*, **2**, 2, 163-177.
- Hou C, Pettet MW, Norcia AM. (2008) Abnormalities of coherent motion processing in strabismic amblyopia: Visual Evoked Potential measurements. *Journal of Vision*. **8(4)**, 1-12.
- Appelbaum LG, Wade AR, Vildavski VY, Pettet MW, Norcia AM. (2008) Figure ground interaction in human visual cortex. *Journal of Vision*, **8(9)**: 1-19.
- Mirabella G, Norcia AM. (2008) Neural correlates of transformational apparent motion. *Perception*, **37(9)**: 1368-1379.
- Sterkin A, Yehezkel O, Bonne Y, Norcia, A, Polat U. (2008) Multi-component correlate for lateral collinear interactions in the human visual cortex. *Vision Research*. **48(15)**: 1641-1647.
- Gilmore RO, Hou C, Pettet MW, Norcia AM. (2007) Development of cortical responses to optic flow. *Visual Neuroscience* **24(6)**: 845-56.
- Hou C, Good WV, Norcia AM. (2007) Validation study of VEP vernier acuity in normal-vision and amblyopic adults. *Invest Ophthalmol Vis Sci*. **48(9)**: 4070-8.
- Pei F, Pettet MW, Norcia AM. (2007) Sensitivity and configuration-specificity of orientation-defined texture processing in infants and adults. *Vision Research*. **47**:338-48.
- Appelbaum LG, Wade AR, Vildavski VY, Pettet MW, Norcia AM. (2006) Cue-invariant networks for figure and background processing in human visual cortex. *J. Neuroscience*, **26(45)**: 11695-708.

- Hou C, Pettet MW, Vildavski VY, Norcia AM. (2006) Neural correlates of shape-from-shading. *Vision Research*, **46**(6-7): 1080-90.
- Ing MR, Norcia A, Stager D Sr, Black B, Hoffman R, Mazow M, Troia S, Scott W, Lambert S. (2006) A prospective study of alternating occlusion before surgical alignment for infantile esotropia: one-year postoperative motor results. *J Amer Assoc Ped Ophth Strab*. **10**:49-53.
- Chen SI, Chandna A, Norcia AM, Pettet M, Stone D. (2006) The repeatability of best corrected acuity in normal and amblyopic children 4 to 12 years of age. *Invest Ophthalmol Vis Sci.*, **47**(2): 614-9.
- Mirabella G, Kjaer PK, Norcia AM, Good WV, Madan A. (2006) Visual development in very low birth weight infants. *Pediatric Research*. **60**:435-9.
- Chen SI, Norcia AM, Pettet MW, Chandna A. (2005) Measurement of position acuity in strabismus and amblyopia: specificity of the vernier VEP paradigm. *Invest Ophthalmol Vis Sci.*, **46**(12): 4563-70.
- Pei F, Pettet MW, Vildavski VY, Norcia AM. (2005) Event-related potentials show configural specificity of global form processing. *Neuroreport*. **16**(13): 1427-30.
- Norcia AM, Sampath V, Hou C, Pettet MW. (2005) Experience expectant development of contour integration mechanisms in human visual cortex. *Journal of Vision*, **5**(2): 116-30.
- Norcia AM, Pei F, Bonneh Y, Hou C, Sampath V, Pettet MW. (2005) Development of sensitivity to texture and contour information in the human infant. *J. Cognitive Neuroscience*, **17**(4): 569-79.
- Norcia AM, McKee SP, Bonneh Y, Pettet MW. (2005) Suppression of monocular direction under fused binocular stimulation: evoked potential measurements. *Journal of Vision* **5**(1):34-44.
- Hale J, Harrad RA, McKee SP, Pettet MW, Norcia AM. (2005) A VEP measure of the binocular fusion of horizontal and vertical disparities. *Invest Ophthalmol Vis Sci*. **46**(5):1786-90.
- Chandna A, Gonzales-Martin JA, Norcia AM. (2004) Recovery of contour integration in relation to LogMAR visual acuity during treatment of amblyopia in children. *Invest. Ophthalmol. Vis. Sci.*, **45**(11): 4016-22.
- Hou C, Pettet MW, Sampath V, Candy TR, Norcia AM. (2003) Development of the spatial organization and dynamics of lateral Interactions in human visual system. *J. Neuroscience*, **23**(25): 8630-40.
- Pei F, Pettet MW, Norcia AM. (2002) Neural correlates of object-based attention. *Journal of Vision*. **2**(9): 588-96.
- Skoczenski AM, Norcia AM. (2002) Late maturation of visual hyperacuity. *Psychological Science*. **13**(6): 537-41.
- Norcia AM, Candy TR, Pettet MW, Vildavski VY, Tyler CW. (2002) Temporal dynamics of the human response to symmetry. *Journal of Vision*. **2**(2): 132-39.

- Kasamatsu T, Polat U, Pettet MW, Norcia AM. (2001) Collinear facilitation promotes reliability of single-cell responses in cat striate cortex. *Experimental Brain Research*. **138**(2):163-72.
- Chen CC, Kasamatsu T, Polat U, Norcia AM. (2001) Contrast response characteristics of long-range lateral interactions in cat striate cortex. *NeuroReport*. **12**(4):655-61.
- Candy TR, Skoczenski A, Norcia AM. (2001) Normalization models applied to orientation masking in the human infant. *J. Neuroscience*. **21**: 4530-41.
- Chandna A, Pennefather PM, Kovacs I, Norcia AM. (2000) Contour integration deficits in anisometropia amblyopia. *Invest. Ophthalmol. Vis. Sci.* **42**: 875-78.
- Kovacs I, Polat U, Pennefather PM, Chandna A, Norcia AM. (2000) A new test of contour integration deficits in patients with a history of disrupted binocular experience during visual development. *Vision Research*. **40**:1775-83.
- Norcia AM, Harrad RA, Brown RJ. (2000) Changes in cortical activity during suppression in stereoblindness. *NeuroReport*,. **11**(5): 1007-12.
- Norcia AM, Wesemann W, Manny RE. (1999) Electrophysiological correlates of vernier and relative motion mechanisms in human visual cortex. *Visual Neuroscience*., **16**: 1123-31.
- Brown RJ, Candy TR, Norcia AM. (1999) Development of rivalry and dichoptic masking in human infants. *Invest. Ophthalmol. Vis. Sci.*, **40**: 3324-33.
- Pennefather PM, Chandna A, Kovacs I, Polat U, Norcia AM. (1999) Contour detection threshold: repeatability and learning with "contour cards". *Spatial Vision*, **12**: 257-66.
- Shea SJ, Chandna A, Norcia AM. (1999) Oscillatory motion but not pattern reversal elicits monocular motion VEP biases in infantile esotropia. *Vision Research*. **39**: 1803-11.
- Skoczenski AM, Norcia AM. (1999) The development of VEP vernier acuity and grating acuity in human infants. *Invest. Ophthalmol. Vis. Sci.*, **40**: 2411-17.
- Wilson JR, Noyd WW, Aiyer AD, Norcia AM, Mustari MJ, Boothe RG. (1999) Asymmetric responses in cortical visually evoked potentials to motion are not derived from eye movements. *Invest. Ophthalmol. Vis. Sci.*, **40**(10): 2435-39.
- Brosnahan D, Norcia AM, Schor CM, Taylor D. (1998) OKN, perceptual and VEP direction biases in strabismus. *Vision Research*. **38**: 2833-40.
- Brown RJ, Wilson JR, Norcia AM, Boothe RG. (1998) Development of directional motion symmetry in the monocular visually evoked potential of infant monkeys. *Vision Research*, **38**: 1253-63.
- Kasamatsu T, Kitano M, Sutter EE, Norcia AM. (1998) Lack of lateral inhibitory interactions in visual cortex of monocularly deprived cats. *Vision Research*, **38**(1): 1-25.

- Polat U, Mizobe K, Pettet MV, Kasamatsu T, Norcia AM (1998) Collinear stimuli regulate visual responses depending on cell's contrast threshold. *Nature*, **391**: 580-83.
- Skoczenski A, Norcia AM (1998) Neural noise limitations on infant sensitivity. *Nature*, **391**: 697-700.
- Polat U, Norcia AM (1998) Elongated physiological summation pools in human visual cortex. *Vision Research*, **38**: 3735-42.
- Brown RJ, Norcia AM. (1997) A method for investigating binocular rivalry in real-time with the steady-state VEP. *Vision Research*, **37**: 2349-60.
- Peterzell DH, Norcia AM. (1997) Spatial frequency masking with the sweep VEP. *Vision Research*, **37**: 2401-08.
- Polat U, Sagi D, Norcia AM. (1997) Abnormal long-range spatial interactions in amblyopia. *Vision Research*, **37**: 737-44.
- Allen D, Tyler CW, Norcia AM. (1996) Development of grating acuity and contrast sensitivity in the central and peripheral visual field of the human infant. *Vision Research*, **36**: 1945-1953.
- Wesemann W, Norcia AM, Manny RE. (1996) Messung der Noniussehstärke und der Bewegungswahrnehmung mit dem Parameter-Sweep-VEP. *Klin. Monatsbl. Augenheilkd.*, **208**: 11-7.
- Polat U, Norcia AM. (1996) Neurophysiological evidence for contrast dependent long range facilitation and suppression in the human visual cortex. *Vision Research*, **36**: 2099-110.
- Norcia AM. (1996) Abnormal motion processing and binocularity: Infantile esotropia as a model system for effects of early interruptions of binocularity. *Eye*, **10**: 259-65.
- Tang Y, Norcia AM. (1995) Coherent bispectral analysis of the steady-state VEP. *Proc. IEEE Eng. Med. Biol. Soc.*, **17**.
- Tang Y, Norcia AM. (1995) Application of adaptive filtering to the steady-state evoked response. *Med. Biol. Eng. Comput.*, **33**: 391-5.
- Tang Y, Norcia AM. (1995) An adaptive filter for steady-state evoked responses. *Electroencephalog. Clin. Neurophysiol.*, **96**: 168-77.
- Kitano M, Kasamatsu T, Norcia AM, Sutter EE. (1995) Spatially distributed responses induced by contrast reversal in cat visual cortex. *Exp. Brain Res.*, **104**: 297-309.
- Norcia A.M., Hamer RD, Jampolsky A, Orel-Bixler D. (1995) Plasticity of human motion processing mechanisms following surgery for infantile esotropia. *Vision Research*, **35**: 3279-96.
- Tang Y, Norcia AM. (1994) Evaluation of a new Laplacian filter for steady-state EPs. *Proc. IEEE Eng. Med. Biol. Soc.*, **16**: 211-2.

- Kitano M, Niiyama K, Kasamatsu T, Sutter EE, Norcia AM. (1994) Retinotopic and non-retinotopic field potentials in cat visual cortex. *Visual Neuroscience*, **11**: 953-77.
- Jampolsky A, Norcia AM, Hamer RD. (1994) Preoperative alternate occlusion decreases motion processing abnormalities in infantile esotropia. *J. Ped. Ophthalmol. Strab.*, **31**: 6-17.
- Hamer RD, Norcia AM. (1994) The development of motion sensitivity during the first year of life. *Vision Research*, **34**: 2387-402.
- Tang Y, Norcia AM. (1993) Improved processing of the steady-state evoked potential. *Encephalog. Clin. Neurophysiol.*, **88**: 323-34.
- Hamer RD, Norcia AM, Orel-Bixler D, Hoyt CS. (1993) Motion VEPs in late-onset esotropia. *Clin. Vision Sci.*, **8**: 55-62.
- Allen D, Banks MS, Norcia AM. (1993) Does chromatic sensitivity develop more slowly than luminance sensitivity? *Vision Research*, **33**: 2553-62.
- Wesemann W, Norcia AM. (1992) Contrast dependence of the oscillatory motion threshold across the visual field. *J. Opt. Soc. Am. A*, **9**(10): 1663-71.
- Hamer RD, Norcia AM, Day SH, Haegerstrom-Portnoy G, Lewis D, Hsu-Winges C. (1992) Comparison of on-and-off-axis photorefractive with cycloplegic retinoscopy in infant. *J. Ped. Ophthalmol. Strab.*, **29**: 232-9.
- Wesemann W, Norcia AM, Allen D. (1991) Theory of eccentric photorefractive (photoretinoscopy): Astigmatic eyes. *J. Opt. Soc. Am. A*, **8**: 2038-47.
- Ohashi T, Norcia AM, Kasamatsu T, Jampolsky A. (1991) Recovery from effects of monocular deprivation caused by diffusion and occlusion. *Brain Research*, **548**: 63-73.
- Norcia AM, Garcia H, Humphry R, Holmes A, Hamer RD, Orel-Bixler D. (1991) Anomalous motion VEPs in infants and in infantile esotropia. *Invest. Ophthalmol. Vis. Sci.*, **32**: 436-9.
- Tang Y, Norcia AM. (1990) Improved parameter estimation of steady-state visual evoked potentials. *IEEE Eng. Med. Biol. Soc.*, **12**: 903-5.
- Norcia AM, Tyler CW, Hamer RD. (1990) Development of contrast sensitivity in the human infant. *Vision Research*, **30**: 1475-86.
- Hsu-Winges C, Hamer RD, Norcia AM, Wesemann H, Chan C. (1989) Polaroid photorefractive screening of infants. *J. Ped. Ophthalmol. Strab.* **26**: 254-60.
- Hamer RD, Norcia AM, Tyler CW, Hsu-Winges C. (1989) The development of monocular and binocular VEP acuity. *Vision Research*. **29**:397-408.
- Norcia AM, Tyler CW, Hamer RD, Wesemann W. (1989) Measurement of spatial contrast sensitivity with the swept contrast VEP. *Vision Research*. **29**:627-37.

- Day SH, Norcia AM. (1988) Photographic screening for factors leading to amblyopia. *Am. Orthoptic J.* **38**: 51-5.
- Day SH, Orel-Bixler DA, Norcia AM. (1988) Abnormal acuity development in infantile esotropia. *Invest Ophthalmol Vis Sci.* **29**:327-9.
- Norcia AM, Tyler CW, Hamer RD. (1988) High visual contrast sensitivity in the young human infant. *Invest Ophthalmol Vis Sci.* **29**:44-9.
- Norcia AM, Tyler CW, Piecuch R, Clyman R, Grobstein J. (1987) Visual acuity development in normal and abnormal preterm human infants. *J Pediatr Ophthalmol Strabis.* **24**:70-4.
- Orel-Bixler DA, Norcia AM (1987) Differential growth of acuity for steady-state pattern reversal and transient pattern. *Clin. Vision Sci.* **2**, 1-9.
- Norcia AM, Zadnik K, Day SH. (1986) Photorefraction with a catadioptric lens. Improvement on the method of Kaakinen. *Acta Ophthalmol (Copenh).* **64**:379-85.
- Allen D, Norcia AM, Tyler CW. (1986) Comparative study of electrophysiological and psychophysical measurement of the contrast sensitivity function in humans. *Am J Optom Physiol Opt.* **63**:442-9.
- Norcia AM, Sato T, Shinn P, Mertus J. (1986) Methods for the identification of evoked response components in the frequency and combined time/frequency domains. *Electroencephalogr Clin Neurophysiol.* **65**:212-26.
- Day SH, Norcia AM. (1986) Photographic detection of amblyogenic factors. *Ophthalmology* **93**:25-8.
- Norcia AM, Tyler CW, Allen D. Electrophysiological assessment of contrast sensitivity in human infants. (1986) *Am J Optom Physiol Opt.* **63**:12-5.
- Norcia A.M., Clarke M., & Tyler C.W. (1985) Digital filtering and robust regression techniques for estimating sensory thresholds from the evoked potential. *IEEE Eng. Med. Biol. Soc.* **4**, 26-32.
- Norcia AM, Tyler CW. (1985) Infant VEP acuity measurements: analysis of individual differences and measurement error. *Electroencephalogr Clin Neurophysiol.* **61**:359-69.
- Norcia AM, Tyler CW. (1985) Spatial frequency sweep VEP: visual acuity during the first year of life. *Vision Research.* **25**:1399-408.
- Norcia AM, Sutter EE, Tyler CW. (1985) Electrophysiological evidence for the existence of coarse and fine disparity mechanisms in human. *Vision Research.* **25**:1603-11.
- Odom JV, Norcia AM (1984) Retinal and cortical potentials: spatial and temporal characteristics. *Doc. Ophthalm. Proc. Series*, **40**, 29-38.

Norcia AM, Tyler CW. (1984) Temporal frequency limits for stereoscopic apparent motion processes. *Vision Research*. **24**:395-401.

Courchesne E, Ganz L, Norcia AM. (1981) Event-related brain potentials to human faces in infants. *Child Development*. **52**:804-11.

Yonas A, Oberg C, Norcia A. (1978) Development of sensitivity to binocular information to the approach of an object. *Developmental Psychology*, **14**, 147-152.

Yonas A, Bechtold, AG, Frankel, D, Gordon, FR, McRoberts, G, Norcia A, Sternfels S. (1977) Development of sensitivity to information for impending collision. *Perception and Psychophysics*, **21**, 97-104.

Book Chapters, Monographs

Norcia AM, Manny RE. (2011) Development of vision in infancy. In: *Adler's Physiology of the Eye*, 11th Edition, Kaufman PL, Alm A (Eds.).

Miller RT, Vildavski, VY, Norcia, AM. (2008) Improved Volterra kernel methods for the analysis of the visual system. *arXiv:0812.1062v1 [q-bio.QM]*

Norcia, AM, Pei, F. (2007) The development of vision and visual attention. In: *Clinics in Developmental Medicine No. 176: Neurological assessment in the first two years of life: instruments for the follow-up of high-risk newborns*. Editors: Cioni G & Mercuri E, MacKeith Press, pp. 198-213.

Norcia AM. (2003) Development of spatial selectivity and response timing in human. In: *The Visual Neurosciences*, Chalupa LM & Werner JS (eds.), pp. 174-88.

Norcia AM, Manny RE. (2003) Development of vision in infancy. In: *Adler's Physiology of the Eye*, 10th Edition, Kaufman PL, Alm A (Eds.); 531-51.

Norcia AM. (1993) Improving infant evoked response measurement. In: *Early Visual Development Normal and Abnormal*. Simons K (ed.), Oxford: New York; 536-52.

Polat U, Norcia AM and Sagi D. (1996) The Pattern and Functional Significance of Long-Range Interactions in Human Visual Cortex. In: *Lateral interactions in the cortex: structure and function*. Sirosh J, Mikkulainen, R, Choe, Y, Hypertext Book ISBN 0-9647060-0-8.

Grzywacz NM, Norcia AM. (1995) Directional selectivity in the cortex. In: *Handbook of Brain Theory and Neural Networks*. Arbib MA (ed.), Bradford Books: MIT Press, Cambridge, MA; 309-11.

Norcia AM. (1994) Vision testing by visual evoked potential techniques. In: *The Eye in Infancy*. Isenberg S (ed.), Mosby: Chicago; 157-73.

Day SH, Norcia AM. (1990) Infantile esotropia and the developing visual system. *Ophthalmol. Clinics North America*, **3**: 281-8.

Tyler C.W., & Norcia A.M. (1986) Plasticity of human acuity development with variations in visual experience. In: Adaptive Processes in Visual and Oculomotor Systems. Keller E.L. & Zee D.S. (eds.), Pergamon, Oxford, pp. 95-100.

Selected Invited Talks

Roger Trimble Lecture, British Isles Paediatric Ophthalmology Association Meeting (2016) *The stereoscopic brain.*

Optical Society of America, Fall Vision Meeting (2013) *Abnormal Preparatory activity in amblyopia: Deficits beyond early visual cortex.*

Department of Psychology, University of California, Santa Cruz (2013) *Imaging the dynamics of figure-ground segmentation.*

Center for Perceptual Systems, University of Texas, Austin (2012) *Imaging the dynamics of disparity encoding and disparity-based decision-making in human visual cortex.*

Canonical Computation Working Group, La Prieta II (2012) *Regulation of the contrast response function in development and disease.* <http://www.carandinilab.net/canonicalneuralcomputation>

Department of Psychology, University of Nevada, Reno (2012) *Neuroimaging the dynamics of figure-ground segmentation.*

Autism Working Group, Stanford University (2011) *Canonical computations, hyper-excitability and ASD's.*

Byer's Eye Research Institute Inauguration (2011) *Imaging visual function in adults and patients with strabismus.*

Alder Hey Children's Hospital Symposium, Liverpool, UK (2011) *Early investigation of visual deficits in prematurity and CVI: Sweep VEP.*

Bay Area Vision Research Day (2010) *Development of texture segmentation mechanisms.*

Canonical Computation Working Group, La Prieta I (2009) *Normal and abnormal development of contrast gain control and contextual interactions.*

Edridge Green Lecture, Royal College of Ophthalmology, Liverpool, (2008). *Normal and abnormal development of the position sense.*

Grand Rounds, Department of Ophthalmology, UCSF (2008) *Neural basis of fine position sensitivity.*

Boynton Colloquium Series, Center for Visual Science, University of Rochester (2007) *Imaging the dynamics of figure-ground segmentation.*

Annual Interdisciplinary Conference, Jackson Hole, WY (2007) *Periodic visual stimuli lead to anticipatory responses in human prefrontal cortex: results for EEG source imaging.*

Laboratory for Sensorimotor Research, National Eye Institute (2006) *Source-imaging of figure-ground processing in human visual cortex.*

Athinoula A. Martinos Center for Biomedical Imaging (2006) *Figure-ground processing in human visual cortex as studied by frequency-tagged EEG source imaging.*

Center for Neural Science, New York University (2006) *Differential modulation of local and global motion responses by sustained visual attention.*

Paediatric Ophthalmology Grand Rounds, Royal Liverpool Childrens' Hospital (2006) *New perspectives on vernier acuity.*

Oxyopia Seminar Series, School of Optometry, University of California, Berkeley (2005) *New perspectives on vernier acuity.*

Cognitive Neuroscience Seminar Series, University of California, San Francisco, (2005) Source-imaging of texture segmentation processes.

Weizmann Institute of Science, Rehovot, Israel (2004) *Contour integration mechanisms in human visual cortex.*

British Society for Clinical Electrophysiology of Vision, Keynote Address, Liverpool (2004) *Visual evoked responses as measures of visibility.*

Annual Interdisciplinary Conference, Jackson Hole, WY (2004) *Experience expectant development of contour integration mechanisms*

Computational Neuroimaging Conference, Stanford University (2004) *Development of configural sensitivity.*