




Brian A. Wandell

Isaac and Madeline Stein Family Professor and Professor, by courtesy, of Electrical Engineering, of Ophthalmology and at the Graduate School of Education

Psychology

 Curriculum Vitae available Online

Bio

BIO

Brian A. Wandell is the first Isaac and Madeline Stein Family Professor. He is a member of the Stanford Psychology faculty and a member, by courtesy, of Electrical Engineering, Ophthalmology, and the Graduate School of Education. He directs Stanford's Center for Cognitive and Neurobiological Imaging, an MRI service center, and he is deputy director of the Wu Tsai Neurosciences Institute. Wandell's research centers on vision science, spanning topics from visual disorders, reading development in children, to digital imaging devices and algorithms for both magnetic resonance imaging and digital imaging. Wandell's work in visual neuroscience uses functional, structural and quantitative MRI along with behavior testing and modeling to understand the action of the visual portions of the brain. His lab has worked to identify and then understand the organization of the visual field maps in the human brain, color and motion processing within these maps, the potential for reorganization following injury, and the development of the cortical circuitry for reading. The Wandell lab develops software tools for digital imaging applications. The software includes methods for analyzing magnetic resonance imaging (MRI) data, as well as tools to design and evaluate cameras used in a range of applications: consumer photography, medical imaging, and artificial intelligence for automotive applications. Wandell's work has led to commercial applications including two companies that he co-founded, Imageval, LLC and Flywheel.io, LLC.

ACADEMIC APPOINTMENTS

- Professor, Psychology
- Professor (By courtesy), Electrical Engineering
- Professor (By courtesy), Ophthalmology
- Professor (By courtesy), Graduate School of Education
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Chair, Psychology, (2006-2009)
- Director, Stanford's Center for Cognitive and Neurobiological Imaging, (2010- present)
- Deputy Director, Wu Tsai Neurosciences Institute, (2013- present)

HONORS AND AWARDS

- George Miller Prize, Cognitive Neuroscience Society (2016)
- Oberdorfer Award, ARVO (2012)
- Member, American Academy of Arts and Sciences (2011)

- Electronic Imaging Scientist of the Year, SPIE/IS&T (2007)
- Member, US National Academy of Sciences (2003)
- Macbeth Prize, Inter-Society Color Council (2000)
- Edridge-Green Medal in Ophthalmology for work in visual neuroscience, Edridge-Green Medal in Ophthalmology for work in visual neuroscience (1997)
- Senior Investigator, McKnight (1997)
- Fellow, Optical Society of America (1990)
- Troland Research Award, National Academy of Sciences (1986)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Scientific Advisory Board, Dept. Neurobiology, Weizmann Institute of Science (2009 - 2014)
- Advisory board, Max Planck Institute for Cybernetics, Tuebingen (2005 - 2014)
- Board member, Ontario brain institute (2013 - 2016)
- Class president, National Academy of Sciences (2012 - 2015)

PROGRAM AFFILIATIONS

- Symbolic Systems Program

PROFESSIONAL EDUCATION

- PhD, UC Irvine , Social Sciences (1977)

LINKS

- Wandell Home Page: <http://web.stanford.edu/~wandell>
- Vista Lab Site: <http://vistalab.stanford.edu/>

Research & Scholarship

RESEARCH INTERESTS

- Brain and Learning Sciences
- Psychology
- Technology and Education

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Visual perception

Professor Wandell's work in visual neuroscience uses both neuroimaging and computational models to understand the action of the visual portions of the brain. His team has developed a set of magnetic resonance imaging methods for identifying and measuring distinct and specialized regions of human visual cortex and the connections between them. His team has been particularly interested in measuring the development of brain function and reorganization following injury or abnormal development.

Along with a group of colleagues around the world, Wandell is developing software simulations to model how light is encoded by the human eye. The open-source project generates physically realistic descriptions of three dimensional scene radiances and how they are transformed by the eye's optics and then evoke responses in the retinal and cortical circuitry of in the brain. (<https://github.com/isetbio/wiki>)

Reading development

The Wandell lab is applying a powerful set of MRI measurement methodologies to study human brain development. These include diffusion measures, functional measures, and novel approaches for assessing quantitative tissue properties such as tissue volume and chemistry. In one group of studies, they are measuring the signals and growth of visual cortex in children, aged 8-12, during the period children become skilled readers. Using very high spatial resolution and neuroimaging techniques, including some methods developed by this group, the lab is hoping to understand how visual signals contribute to the neural pathways of reading. These measurements of the developmental changes during the acquisition of skilled reading are intended to explain how visual signals are rapidly identified and classified as we read.

Data management and computational methods

In support of reproducible research in neuroimaging, Professor Wandell and his team implemented a data and computational management system for medical imaging. The original system (Neurobiological Image Management System) was developed with the support of the Simons Foundation and used at the MRI Center Professor Wandell directs. That system has evolved into a commercial product that supports cloud-scale collaborative science (<https://flywheel.io/>). The Flywheel system is deployed at more than twenty neuroimaging research centers around the world.

Teaching

COURSES

2019-20

- Cognitive Neuroscience: PSYCH 202 (Spr)
- Human Neuroimaging Methods: PSYCH 204A (Win)
- Image Systems Engineering: PSYCH 221 (Aut)
- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

2018-19

- Human Neuroimaging Methods: PSYCH 204A (Win)
- Image Systems Engineering: PSYCH 221 (Aut)
- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

2017-18

- Human Neuroimaging Methods: PSYCH 204A (Win)
- Image Systems Engineering: PSYCH 221 (Aut)
- Seminar Series for Image Systems Engineering: EE 292E (Aut, Win, Spr)

2016-17

- Human Neuroimaging Methods: PSYCH 204A (Win)
- Image Systems Engineering: EE 292E (Win, Spr)
- Image Systems Engineering: PSYCH 221 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Robert Konrad, Jayant Thatte

Postdoctoral Faculty Sponsor

Garikoitz Lerma-Usabiaga

Doctoral Dissertation Advisor (AC)

Trisha Lian, Zheng Lyu

Postdoctoral Research Mentor

Garikoitz Lerma-Usabiaga

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Replication and generalization in applied neuroimaging.** *NeuroImage*
Lerma-Usabiaga, G., Mukherjee, P., Ren, Z., Perry, M. L., Wandell, B. A.
2019; 116048
- **A computational-observer model of spatial contrast sensitivity: Effects of wave-front-based optics, cone-mosaic structure, and inference engine.** *Journal of vision*
Cottaris, N. P., Jiang, H., Ding, X., Wandell, B. A., Brainard, D. H.
2019; 19 (4): 8
- **Ray tracing 3D spectral scenes through human optics models.** *Journal of vision*
Lian, T., MacKenzie, K. J., Brainard, D. H., Cottaris, N. P., Wandell, B. A.
2019; 19 (12): 23
- **Diagnosing the Neural Circuitry of Reading** *NEURON*
Wandell, B. A., Le, R. K.
2017; 96 (2): 298–311
- **Clarifying Human White Matter** *ANNUAL REVIEW OF NEUROSCIENCE, VOL 39*
Wandell, B. A.
2016; 39: 103-128
- **Computational neuroimaging and population receptive fields.** *Trends in cognitive sciences*
Wandell, B. A., Winawer, J.
2015; 19 (6): 349-357
- **The vertical occipital fasciculus: A century of controversy resolved by in vivo measurements** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yeatman, J. D., Weiner, K. S., Pestilli, F., Rokem, A., Mezer, A., Wandell, B. A.
2014; 111 (48): E5214-E5223
- **Evaluation and statistical inference for human connectomes** *NATURE METHODS*
Pestilli, F., Yeatman, J. D., Rokem, A., Kay, K. N., Wandell, B. A.
2014; 11 (10): 1058-1063
- **Lifespan maturation and degeneration of human brain white matter** *NATURE COMMUNICATIONS*
Yeatman, J. D., Wandell, B. A., Mezer, A. A.
2014; 5
- **Quantifying the local tissue volume and composition in individual brains with magnetic resonance imaging** *NATURE MEDICINE*
Mezer, A., Yeatman, J. D., Stikov, N., Kay, K. N., Cho, N., Dougherty, R. F., Perry, M. L., Parvizi, J., Hua, L. H., Butts-Pauly, K., Wandell, B. A.
2013; 19 (12): 1667-1672
- **Asynchronous Broadband Signals Are the Principal Source of the BOLD Response in Human Visual Cortex** *CURRENT BIOLOGY*
Winawer, J., Kay, K. N., Foster, B. L., Rauschecker, A. M., Parvizi, J., Wandell, B. A.
2013; 23 (13): 1145-1153

- **Biological development of reading circuits.** *Current opinion in neurobiology*
Wandell, B. A., Yeatman, J. D.
2013; 23 (2): 261-268
- **Human trichromacy revisited** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Horiguchi, H., Winawer, J., Dougherty, R. F., Wandell, B. A.
2013; 110 (3): E260-E269
- **A two-stage cascade model of BOLD responses in human visual cortex.** *PLoS computational biology*
Kay, K. N., Winawer, J., Rokem, A., Mezer, A., Wandell, B. A.
2013; 9 (5)
- **ISETBIO: Software for the Foundations Of Vision Science**
Wandell, B.
SAGE PUBLICATIONS LTD.2019: 5–6
- **A Conversation with Jacob Nachmias.** *Annual review of vision science*
Nachmias, J., Movshon, J. A., Wandell, B. A., Brainard, D. H.
2019
- **iEEG-BIDS, extending the Brain Imaging Data Structure specification to human intracranial electrophysiology.** *Scientific data*
Holdgraf, C., Appelhoff, S., Bickel, S., Bouchard, K., D'Ambrosio, S., David, O., Devinsky, O., Dichter, B., Flinker, A., Foster, B. L., Gorgolewski, K. J., Groen, I., Groppe, et al
2019; 6 (1): 102
- **A computational-observer model of spatial contrast sensitivity: Effects of wave-front-based optics, cone-mosaic structure, and inference engine** *JOURNAL OF VISION*
Cottaris, N. P., Jiang, H., Ding, X., Wandell, B. A., Brainard, D. H.
2019; 19 (4)
- **Computational-observer analysis of illumination discrimination.** *Journal of vision*
Ding, X., Radonjic, A., Cottaris, N. P., Jiang, H., Wandell, B. A., Brainard, D. H.
2019; 19 (7): 11
- **Simulation of visual perception and learning with a retinal prosthesis.** *Journal of neural engineering*
Golden, J. R., Erickson-Davis, C., Cottaris, N. P., Parthasarathy, N., Rieke, F., Brainard, D., Wandell, B., Chichilnisky, E. J.
2018
- **The ENGAGE study: Integrating neuroimaging, virtual reality and smartphone sensing to understand self-regulation for managing depression and obesity in a precision medicine model.** *Behaviour research and therapy*
Williams, L. M., Pines, A., Goldstein-Piekarski, A. N., Rosas, L. G., Kullar, M., Sacchet, M. D., Gevaert, O., Bailenson, J., Lavori, P. W., Dagum, P., Wandell, B., Correa, C., Greenleaf, et al
2018; 101: 58–70
- **Occipital White Matter Tracts in Human and Macaque.** *Cerebral cortex (New York, N.Y. : 1991)*
Takemura, H., Pestilli, F., Weiner, K. S., Keliris, G. A., Landi, S. M., Sliwa, J., Ye, F. Q., Barnett, M. A., Leopold, D. A., Freiwald, W. A., Logothetis, N. K., Wandell, B. A.
2017; 27 (6): 3346-3359
- **Science in the cloud (SIC): A use case in MRI connectomics.** *GigaScience*
Kiar, G., Gorgolewski, K. J., Kleissas, D., Roncal, W. G., Litt, B., Wandell, B., Poldrack, R. A., Wiener, M., Vogelstein, R. J., Burns, R., Vogelstein, J. T.
2017; 6 (5): 1-10
- **In vivo evidence of functional and anatomical stripe-based subdivisions in human V2 and V3** *SCIENTIFIC REPORTS*
Dumoulin, S. O., Harvey, B. M., Fracasso, A., Zuiderbaan, W., Luijten, P. R., Wandell, B. A., Petridou, N.
2017; 7
- **The field of view available to the ventral occipito-temporal reading circuitry** *JOURNAL OF VISION*
Le, R., Witthoft, N., Ben-Shachar, M., Wandell, B.
2017; 17 (4)

- **The visual white matter: The application of diffusion MRI and fiber tractography to vision science** *JOURNAL OF VISION*
Rokem, A., Takemura, H., Bock, A. S., Scherf, K. S., Behrmann, M., Wandell, B. A., Fine, I., Bridge, H., Pestilli, F.
2017; 17 (2)
- **Designing illuminant spectral power distributions for surface classification**
Blasinski, H., Farrell, J., Wandell, B., IEEE
IEEE.2017: 2682-91
- **Characterization of visual stimuli using the standard display model** *HANDBOOK OF VISUAL OPTICS: FUNDAMENTALS AND EYE OPTICS, VOL I*
Farrell, J. E., Jiang, H., Wandell, B. A., Artal, P.
2017: 93-102
- **Evaluating quantitative proton-density-mapping methods** *HUMAN BRAIN MAPPING*
Mezer, A., Rokem, A., Berman, S., Hastie, T., Wandell, B. A.
2016; 37 (10): 3623-3635
- **A Major Human White Matter Pathway Between Dorsal and Ventral Visual Cortex.** *Cerebral cortex*
Takemura, H., Rokem, A., Winawer, J., Yeatman, J. D., Wandell, B. A., Pestilli, F.
2016; 26 (5): 2205-2214
- **A Predominantly Visual Subdivision of The Right Temporo-Parietal Junction (vTPJ).** *Cerebral cortex*
Horiguchi, H., Wandell, B. A., Winawer, J.
2016; 26 (2): 639-646
- **Ensemble Tractography.** *PLoS computational biology*
Takemura, H., Caiafa, C. F., Wandell, B. A., Pestilli, F.
2016; 12 (2)
- **The posterior arcuate fasciculus and the vertical occipital fasciculus.** *Cortex; a journal devoted to the study of the nervous system and behavior*
Weiner, K. S., Yeatman, J. D., Wandell, B. A.
2016
- **Stimulus Dependence of Gamma Oscillations in Human Visual Cortex.** *Cerebral cortex*
Hermes, D., Miller, K. J., Wandell, B. A., Winawer, J.
2015; 25 (9): 2951-2959
- **Sex differences in the corpus callosum in preschool-aged children with autism spectrum disorder (vol 6, pg 26, 2015)** *MOLECULAR AUTISM*
Nordahl, C., Iosif, A., Young, G. S., Perry, L., Dougherty, R., Lee, A., Li, D., Buonocore, M. H., Simon, T., Rogers, S., Wandell, B., Amaral, D. G.
2015; 6: 39
- **Sex differences in the corpus callosum in preschool-aged children with autism spectrum disorder** *MOLECULAR AUTISM*
Nordahl, C. W., Iosif, A., Young, G. S., Perry, L. M., Dougherty, R., Lee, A., Li, D., Buonocore, M. H., Simon, T., Rogers, S., Wandell, B., Amaral, D. G.
2015; 6
- **Disrupted fornix integrity in children with chromosome 22q11.2 deletion syndrome** *PSYCHIATRY RESEARCH-NEUROIMAGING*
Deng, Y., Goodrich-Hunsaker, N. J., Cabral, M., Amaral, D. G., Buonocore, M. H., Harvey, D., Kalish, K., Carmichael, O. T., Schumann, C. M., Lee, A., Dougherty, R. F., Perry, L. M., Wandell, et al
2015; 232 (1): 106-114
- **Evaluating the Accuracy of Diffusion MRI Models in White Matter** *PLOS ONE*
Rokem, A., Yeatman, J. D., Pestilli, F., Kay, K. N., Mezer, A., van der Walt, S., Wandell, B. A.
2015; 10 (4)
- **A Lack of Experience-Dependent Plasticity After More Than a Decade of Recovered Sight** *PSYCHOLOGICAL SCIENCE*
Huber, E., Webster, J. M., Brewer, A. A., MacLeod, D. I., Wandell, B. A., Boynton, G. M., Wade, A. R., Fine, I.
2015; 26 (4): 393-401
- **Automatically designing an image processing pipeline for a five-band camera prototype using the Local, Linear, Learned (L-3) method** *Conference on Digital Photography XI*
Tian, Q., Blasinska, H., Linsel, S., Jiang, H., Fukunishi, M., Farrell, J. E., Wandell, B. A.

SPIE-INT SOC OPTICAL ENGINEERING.2015

- **Gamma oscillations in visual cortex: the stimulus matters.** *Trends in cognitive sciences*
Hermes, D., Miller, K. J., Wandell, B. A., Winawer, J.
2015; 19 (2): 57–58
- **Efficient illuminant correction in the Local, Linear, Learned (L-3) method** *Conference on Digital Photography XI*
Germain, F. G., Akinola, I. A., Tian, Q., Linsel, S., Wandell, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2015
- **Speed discrimination predicts word but not pseudo-word reading rate in adults and children** *BRAIN AND LANGUAGE*
Main, K. L., Pestilli, F., Mezer, A., Yeatman, J., Martin, R., Phipps, S., Wandell, B.
2014; 138: 27-37
- **White Matter Consequences of Retinal Receptor and Ganglion Cell Damage** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Ogawa, S., Takemura, H., Horiguchi, H., Terao, M., Haji, T., Pestilli, F., Yeatman, J. D., Tsuneoka, H., Wandell, B. A., Masuda, Y.
2014; 55 (10)
- **White matter consequences of retinal receptor and ganglion cell damage.** *Investigative ophthalmology & visual science*
Ogawa, S., Takemura, H., Horiguchi, H., Terao, M., Haji, T., Pestilli, F., Yeatman, J. D., Tsuneoka, H., Wandell, B. A., Masuda, Y.
2014; 55 (10): 6976-6986
- **Evaluation and statistical inference for human connectomes.** *Nature methods*
Pestilli, F., Yeatman, J. D., Rokem, A., Kay, K. N., Wandell, B. A.
2014; 11 (10): 1058-1063
- **Diffusion properties of major white matter tracts in young, typically developing children** *NEUROIMAGE*
Johnson, R. T., Yeatman, J. D., Wandell, B. A., Buonocore, M. H., Amaral, D. G., Nordahl, C. W.
2014; 88: 143-154
- **Automating the design of image processing pipelines for novel color filter arrays: Local, Linear, Learned (L-3) method** *Conference on Digital Photography X*
Tian, Q., Linsel, S., Farrell, J. E., Wandell, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2014
- **Diffusion properties of major white matter tracts in young, typically developing children.** *NeuroImage*
Johnson, R. T., Yeatman, J. D., Wandell, B. A., Buonocore, M. H., Amaral, D. G., Nordahl, C. W.
2014; 88: 143–54
- **Compressive spatial summation in human visual cortex** *JOURNAL OF NEUROPHYSIOLOGY*
Kay, K. N., Winawer, J., Mezer, A., Wandell, B. A.
2013; 110 (2): 481-494
- **Anatomy of the visual word form area: Adjacent cortical circuits and long-range white matter connections.** *Brain and language*
Yeatman, J. D., Rauschecker, A. M., Wandell, B. A.
2013; 125 (2): 146-155
- **A Two-Stage Cascade Model of BOLD Responses in Human Visual Cortex.** *PLoS computational biology*
Kay, K. N., Winawer, J., Rokem, A., Mezer, A., Wandell, B. A.
2013; 9 (5)
- **Connective field modeling** *NEUROIMAGE*
Haak, K. V., Winawer, J., Harvey, B. M., Renken, R., Dumoulin, S. O., Wandell, B. A., Cornelissen, F. W.
2013; 66: 376-384
- **GLMdenoise: a fast, automated technique for denoising task-based fMRI data.** *Frontiers in neuroscience*
Kay, K. N., Rokem, A., Winawer, J., Dougherty, R. F., Wandell, B. A.
2013; 7: 247-?
- **GLMdenoise: a fast, automated technique for denoising task-based fMRI data** *FRONTIERS IN NEUROSCIENCE*
Kay, K. N., Rokem, A., Winawer, J., Dougherty, R. F., Wandell, B. A.

2013; 7

- **Tract Profiles of White Matter Properties: Automating Fiber-Tract Quantification** *PLOS ONE*
Yeatman, J. D., Dougherty, R. F., Myall, N. J., Wandell, B. A., Feldman, H. M.
2012; 7 (11)
- **Development of white matter and reading skills** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yeatman, J. D., Dougherty, R. F., Ben-Shachar, M., Wandell, B. A.
2012; 109 (44): E3045-E3053
- **Plasticity and Stability of the Visual System in Human Achromatopsia** *NEURON*
Hoffmann, M. B., Kaule, F. R., Levin, N., Masuda, Y., Kumar, A., Gottlob, I., Horiguchi, H., Dougherty, R. F., Stadler, J., Wolynski, B., Speck, O., Kanowski, M., Liao, et al
2012; 75 (3): 393-401
- **Position sensitivity in the visual word form area** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Rauschecker, A. M., Bowen, R. F., Parvizi, J., Wandell, B. A.
2012; 109 (24): E1568-E1577
- **Squaring cortex with color** *NATURE NEUROSCIENCE*
Wandell, B. A., Chichilnisky, E. J.
2012; 15 (6): 809-810
- **Digital camera simulation** *APPLIED OPTICS*
Farrell, J. E., Catrysse, P. B., Wandell, B. A.
2012; 51 (4): A80-A90
- **Learning to See Words** *ANNUAL REVIEW OF PSYCHOLOGY, VOL 63*
Wandell, B. A., Rauschecker, A. M., Yeatman, J. D.
2012; 63: 31-53
- **Anatomical Properties of the Arcuate Fasciculus Predict Phonological and Reading Skills in Children** *JOURNAL OF COGNITIVE NEUROSCIENCE*
Yeatman, J. D., Dougherty, R. F., Rykhlevskaia, E., Sherbondy, A. J., Deutsch, G. K., Wandell, B. A., Ben-Shachar, M.
2011; 23 (11): 3304-3317
- **Problem of signal contamination in interhemispheric dual-sided subdural electrodes** *EPILEPSIA*
Nune, G., Winawer, J., Rauschecker, A. M., Dastjerdi, M., Foster, B. L., Wandell, B., Parvizi, J.
2011; 52 (11): E176-E180
- **Visual Feature-Tolerance in the Reading Network** *NEURON*
Rauschecker, A. M., Bowen, R. F., Perry, L. M., Kevan, A. M., Dougherty, R. F., Wandell, B. A.
2011; 71 (5): 941-953
- **The Development of Cortical Sensitivity to Visual Word Forms** *JOURNAL OF COGNITIVE NEUROSCIENCE*
Ben-Shachar, M., Dougherty, R. F., Deutsch, G. K., Wandell, B. A.
2011; 23 (9): 2387-2399
- **Optimizing subpixel rendering using a perceptual metric** *JOURNAL OF THE SOCIETY FOR INFORMATION DISPLAY*
Farrell, J., Eldar, S., Larson, K., Matskewich, T., Wandell, B.
2011; 19 (8): 513-519
- **Imaging retinotopic maps in the human brain** *VISION RESEARCH*
Wandell, B. A., Winawer, J.
2011; 51 (7): 718-737
- **The neurobiological basis of seeing words.** *Annals of the New York Academy of Sciences*
Wandell, B. A.
2011; 1224: 63-80
- **Bound pool fractions complement diffusion measures to describe white matter micro and macrostructure** *NEUROIMAGE*
Stikov, N., Perry, L. M., Mezer, A., Rykhlevskaia, E., Wandell, B. A., Pauly, J. M., Dougherty, R. F.

2011; 54 (2): 1112-1121

- **Task-Dependent V1 Responses in Human Retinitis Pigmentosa** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Masuda, Y., Horiguchi, H., Dumoulin, S. O., Furuta, A., Miyauchi, S., Nakadomari, S., Wandell, B. A.
2010; 51 (10): 5356-5364
- **Congenital Achiasma and See-Saw Nystagmus in VACTERL Syndrome** *JOURNAL OF NEURO-OPHTHALMOLOGY*
Prakash, S., Dumoulin, S. O., Fischbein, N., Wandell, B. A., Liao, Y. J.
2010; 30 (1): 45-48
- **Cortical Maps and White Matter Tracts following Long Period of Visual Deprivation and Retinal Image Restoration** *NEURON*
Levin, N., Dumoulin, S. O., Winawer, J., Dougherty, R. F., Wandell, B. A.
2010; 65 (1): 21-31
- **Mapping hV4 and ventral occipital cortex: The venous eclipse** *JOURNAL OF VISION*
Winawer, J., Horiguchi, H., Sayres, R. A., Amano, K., Wandell, B. A.
2010; 10 (5)
- **Using visible SNR (vSNR) to compare the image quality of pixel binning and digital resizing** *Conference on Digital Photography VI*
Farrell, J., Okincha, M., Parmar, M., Wandell, B.
SPIE-INT SOC OPTICAL ENGINEERING.2010
- **High-speed Document Sensing and Misprint Detection in Digital Presses** *Conference on Sensors, Cameras, and Systems for Industrial/Scientific Applications XI*
Leseur, G., Meunier, N., Georgiadis, G., Huang, L., DiCarlo, J., Wandell, B. A., Catrysse, P. B.
SPIE-INT SOC OPTICAL ENGINEERING.2010
- **Frontoparietal white matter diffusion properties predict mental arithmetic skills in children** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Tsang, J. M., Dougherty, R. F., Deutsch, G. K., Wandell, B. A., Ben-Shachar, M.
2009; 106 (52): 22546-22551
- **Plasticity and stability of visual field maps in adult primary visual cortex** *NATURE REVIEWS NEUROSCIENCE*
Wandell, B. A., Smirnakis, S. M.
2009; 10 (12): 873-884
- **Visual Field Maps, Population Receptive Field Sizes, and Visual Field Coverage in the Human MT plus Complex** *JOURNAL OF NEUROPHYSIOLOGY*
Amano, K., Wandell, B. A., Dumoulin, S. O.
2009; 102 (5): 2704-2718
- **Two temporal channels in human V1 identified using fMRI** *NEUROIMAGE*
Horiguchi, H., Nakadomari, S., Misaki, M., Wandell, B. A.
2009; 47 (1): 273-280
- **Think global, act local; projectome estimation with BlueMatter.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Sherbondy, A. J., Dougherty, R. F., Ananthanarayanan, R., Modha, D. S., Wandell, B. A.
2009; 12: 861-868
- **Dictionaries for sparse representation and recovery of reflectances** *Conference on Computational Imaging VII*
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