

---

**Professor Brian A. Wandell**  
*Isaac and Madeline Stein Family  
Professor  
Department of Psychology*

---

---

*Director, Stanford Center for Cognitive  
Electrical and Neurobiological Imaging,  
and Radiology (by courtesy)*

---

---

## Contact Information

---

Department of Psychology  
Building 420, Jordan Hall  
Stanford University  
Stanford, California 94305-2130  
Phone: (650) 725-2466;  
[wandell@stanford.edu](mailto:wandell@stanford.edu)

---

## Education and Experience

---

- University of Michigan, 1973, B.S. Mathematics/Psychology
- University of California, Irvine, 1973-77, Ph.D. Social Science
- Visiting Scholar Columbia University 1975-76
- Visiting Scholar Harvard University 1976-77
- Postdoctoral Fellow, University of Pennsylvania 1977-1978
- Assistant Professor, Stanford University, 1979-1984
- Associate Professor, Stanford University, 1984-1987
- Professor, Stanford University, 1988-present
- Chair, Psychology Department, Stanford University 2006-2009
- Director, Stanford Center for Cognitive and Neurobiological Imaging (2009-present)
- Deputy Director, Stanford Neuroscience Institute 2013-present

---

## Honors and Awards

---

- Member - National Academy of Sciences, 2003
- Member, American Academy of Arts and Sciences, 2011
- The highest award (honorary membership) of the Society for Imaging Science and Technology - 2015
- Oberdorfer Award, Association for Research in Vision and Ophthalmology, 2012
- Steering Committee, National Academy Keck Futures Initiative (2010, 2012)
- Fellow of the American Psychology Society, 2009
- Tillyer Award from the Optical Society of America, 2008
- Electronic Imaging Scientist of the Year, SPIE and IS&T - 2007
- Member of Society For Experimental Psychologists, 2003
- Isaac and Madeline Stein Family Professor, 2002
- Macbeth Prize, ISCC 2000
- Edridge Green Lecturer, Royal College of Ophthalmology, 1999
- McKnight Senior Fellowship in the Neurosciences, 1997
- Co-Founder/Director Image System Engineering Group at Stanford, 1996
- Fellow of the Optical Society of America, 1993
- Research Scientist, Xerox P.A.R.C., Fall 1991
- Fellow, Center for Advanced Studies in the Behavioral Sciences, 1988-89
- U.S. National Academy of Sciences, Troland Research Award, 1987

- Member of U.S. National Academy of Sciences Delegation to Soviet Academy of Sciences, 1979

### Scientific Administration

Class Chair, Section V, National Academy of Sciences (NAS) 2012-present  
Class Secretary, Section V, NAS 2009-2011

National Research Council, Board for Behavioral, Cognitive and Sensory Sciences, 2006-2011

Scientific Advisory Board, Max-Planck Institute for Cybernetics, 2008-present

Scientific Advisory Board, Neurobiology, Weizmann Institute of Science, 2009, 2013

Army Research Lab Technical Assessment Panel, 2012-present

NAS CMC Member, 2005, 2006

NAS Troland Award Committee, 2004-2005

External academic reviewer at Rutgers, UCSD, Beth-Israel Deaconess, and other research sites

### University Administrative Experience

Deputy Director, Stanford Neuroscience Institute (2013-present)

Founding Director, Stanford Center for Neurobiological Imaging (2009-present)

Committee on Academic Computing and Information Systems (2012-present)

Co-Director, Initiative on Human Health, Stanford Global Challenge 2007-2011

Chair, Psychology Department (2006-2009)

Stanford Neuroscience Institute Advisory Board 2000-2007

Bio-X Advisory board (2005-2012)

University Committee on Research (2005-2007)

Stanford Psychology department executive committee (2002-2009)

### Grants

- Simons Foundation – Project on Scientific Transparency (2013-2015)
- Simons Foundation – Global Brain Project (2014-2017)
- NSF – 3 year award, Human White Matter Development
- Microsoft Advanced Technology 2004-2013
- Current corporate sponsors: Olympus, Samsung
- National Science Foundation, Major Research Instrumentation for an MRI
- Stanford Institute for Reading and Learning – Behavioral Mechanisms Core, 2001 (SIRL; funded by Schwab Foundation)
- NIH, 2003-2014; Reading development
- DARPA: Synapse Project (2008-2010)
- HP: Misprint detection 2008-present
- Dana Foundation Arts and Cognition 2004-2008
- Programmable digital camera project (funded by Kodak, Agilent, HP, Intel, Interval and Canon; joint with El Gamal)
- NIH, 1979-present; The Neural Basis of Color Appearance
- McKnight Foundation, 1996-2001; Cortical Plasticity and Amblyopia
- Whitehall Foundation, 1996-2001; Cortical Plasticity
- HP, Individual Research Grant 1993-1997, Image Quality
- HP, 1995-1997; Image Systems Engineering Program Development Award (with J. Goodman)
- McDonnell-Pew, 1994-1997; Functional Magnetic Resonance Imaging
- NASA, 1981-1997; Center of Excellence in Model-Based Human Factors
- AFOSR, 1982-1983; Illuminant and Reflectance Estimation Algorithms

I have participated in a variety of institutional training grants (Neurosciences

Training Grant from the NIH, Experimental Psychology Training Grant from NSF, Major Research Instrumentation from the NSF for an MR scanner). I have served as sponsor on numerous grants for individual graduate students and post-doctoral fellows working in my laboratory. These awards have come from McDonnell-Pew Charitable Trusts, the NRSA, NSF, NEI, IBM, and other sources.

### Journal Editorships and Reviewing

Founding Editor (with J. A. Movshon) of the *Annual Review of Vision Science* (2014)

Associate editor of the *Journal of Vision*, (2000-2006)

Associate editor of *Neural Networks*, 1988-2006

Associate editor of *Journal of Neuroscience*, 1998-2004

Associate editor of *Vision Research*, 1986-1992

Scientific Advisory Board, Weizmann Institute of Science – 2010 and 2013

Scientific Advisory Board, Max-Planck Institute for Biological Cybernetics – 2008-present

Army Research Lab Review Panel - 2013  
Juelich Research Center External Reviewer 2013

NIH Grant Review Panel 1998-2004

*Brain and Behavior Sciences, Color Research and Applications, Cortex, Cerebral Cortex,*

*Current Biology, Current Opinion in Neurobiology, IEEE Pattern Analysis and Machine Intelligence, various IEEE journals, International Journal of Robotics, Journal of Cognitive Neuroscience,*

*Journal of Electronic Imaging, Journal of Experimental Psychology: Perception and Performance Journal of Mathematical Psychology, Journal of Neurophysiology, Journal of the Optical Society of America, Journal of Physiology, Nature, Nature*

*Neuroscience, Nature Reviews Neuroscience, Neuron, Neural Networks Optical Engineering, Perception and Psychophysics, Perception, Proceedings of the National Academy of Sciences (USA), Psychometrika, Science, SIGGRAPH; SPIE, Vision Research*

*Academic Press, Cambridge University Press, Sinauer Press, AFOSR (Air Force); National Science Foundation, Program Committee of the 1992 Symposium on 3D-Graphics, National Science Foundation, National Eye Institute, UES (US Army); Wellcome Trust*

### University Teaching Experience

- Introduction to Psychology (Psychology 1)
- Introduction to Statistics (Psychology 60)
- Brain and Behavior (Psychology 70)
- Introduction to Perception (Psychology 102)
- Graduate Core Course: Cognitive Neuroscience (Psychology 202)
- Graduate Core Course: Sensation and Perception (Psychology 203)
- Behavioral Neuroscience (Psychology/Neuroscience 206)
- Image Systems and Vision Applications (Psychology 221/EE 362)
- Computational Neuroimaging - (Psychology 204A/B)
- Reading: Science, Education, and Politics (Stanford Introductory Seminars 12N; Human Biology 153)
- Neuroimaging Laboratory (Psych 204A)
- Neuroimaging readings (Psych 204B)

### Books and Special Journals

Wandell (1995). **Foundations of Vision**, Sinauer Press, Sunderland, MA. This is a 450-page volume that spans topics in vision science ranging from optics, the neural pathways, psychophysics, computation, and appearance. The book was favorably reviewed in March 8th, 1996 edition of *Science*; other favorable reviews have appeared in *Perception*, *Color Research and Applications* and *The Journal of Electronic Imaging*.

Special editor of an issue of **Current Opinions in Neurobiology** (with A.J. Movshon)

Section editor (Sensory) for the 3<sup>rd</sup> and 4<sup>th</sup> editions **Cognitive Neuroscience** (Gazzaniga) volume.

### Abstracts and Presentations

I have co-authored more than 200 abstracts and given hundreds of professional talks at Universities, conferences and industrial sites around the world. During the last few years I have given invited talks at ARVO, SID, SPIE, OSA, CIC as well as various institutions in Europe and Asia.

### Patents

1. Color Imaging Process (with L. T. Maloney) (US Patent No. 660,938, Reel 4325, Frames 761 through 764), also A Method of, and Apparatus For, Determining Colour (with L. T. Maloney, European Patent 0182496B1)
2. Method and Apparatus for identifying the color of an image (with J. Farrell). US Patent No. 5,479,524.
3. System and Method for Estimating Physical Properties of Objects and Illuminants in a Scene using Modulated light Emission (with J. DiCarlo, P. Catrysse, F. Xiao). US Patent No. 6,839,088.
4. Method for improving SNR in low illumination conditions in CMOS video sensor system using self-resetting digital pixel (with X. Liu, J. M. DiCarlo, A. El Gamal). US Patent 6,963,370
5. Integrated Color Pixel (ICP). Joint with P. Catrysse. US Patent No. 7248297.
6. Hydration Layer Fraction Imaging. Joint with A. Mezer and others. In submission.

### Imaging Corporations: Technical Advisory Board and Consulting

#### PiXIM, technical advisory board

Pixim is a **pre-IPO** venture-funded high technology start-up located in the heart of Silicon Valley, California. The company received its initial funding round in November 1999, the majority of which was provided by Mohr Davidow Ventures of Menlo Park, California. PiXIM's vision is to become the most influential digital imaging company worldwide by leveraging its Digital Pixel Sensor™ technology, originally licensed from a research program conducted at Stanford University. The company recently closed series B funding with the Mayfield Fund.

#### ArcSoft, technical advisory board

ArcSoft develops, manufactures, and markets digital imaging and video software products and Internet technology designed for the creation of business graphics, consumer photo editing, multimedia, and Internet publishing.

#### Hewlett-Packard, consultant

I served as a consultant and work extensively with individuals at Hewlett-Packard laboratories. My collaborations with H-P began in 1985 and continue. I have consulted on projects in the area of display flicker, spatial resolution of the visual system for font design, color calibration of flatbed scanners, display calibration, and color image representations.

---

#### [Xerox P.A.R.C.](#)

I worked with members of the technical staff at Xerox PARC beginning in 1991.

---

#### [Pictra](#)

I was a member of the technical advisory board of this start-up company, which began in May 1996. They developed products related to photo sharing.

---

#### [Lockheed-Martin](#)

I served as a consultant to Lockheed-Martin Imaging Systems Division. I worked as part of a team establishing quality testing for high-resolution CCD imaging devices.

---

#### [Raychem](#)

I served as a consultant on certain kinds of novel LCD devices they have developed for projection displays.

---

#### [Pixar](#)

I served as a consultant on image display issues relating to video and film displays.

---

#### [Savitar](#)

I served as a consultant to Savitar, Inc. in San Francisco. This small company was a leading distributor of color calibration targets for slide and flatbed scanners.

---

#### [Cirrus Logic](#)

I served as a consultant to Cirrus Logic. I worked as part of a team to develop a new controller for portable, color LCD displays. I did the device calibration and developed the color look-up tables to make color images on several types of LCDs more nearly match images on conventional CRTs.

---

#### [ImagEval](#)

I am a founder and consultant for this company. The company provides a software product for Image Systems Engineering ([www.imageval.com](http://www.imageval.com)) as well as a variety of consultant services. Through my work with ImagEval, I have served as a consultant to Motorola, TransChip, Micron, Delphi, Aptina, Canon, and other companies.

---

#### [Smart Color Training](#)

I taught courses to train people in industry on the problems of color science and computer applications. Our course covered the fundamentals of radiometry, colorimetry, color-matching, the visual pathways of color, uniform color spaces, color systems, and color calibration. We have taught the entire course or sections of the course at a number of sites including Motorola, Hewlett-Packard, UC Berkeley Extension, Stanford University, and the Society for Information Display, and SIGGRAPH. Attendees include engineers and managers from more than 200 companies.

## Refereed Publications

---

1. Wandell, Greeno, & Egan (1974). Equivalence classes of functions of finite Markov chains. *J. Math. Psych.*, **11**, 391-403.
2. Yellott & Wandell (1976). Color properties of the contrast flash effect: monoptic vs. dichoptic comparisons. *Vision Res.*, **16**, 1275-1280.
3. Wandell (1977). Speed-accuracy tradeoff in visual detection: applications of neural counting and timing. *Vision Res.*, **17**, 217-226.
4. Wandell (1977). On the analysis of nerve signals deduced from metacontrast experiments with human observers. *J. Physiol.*, **263**, 321-329.
5. Wandell & Luce (1978). Pooling peripheral information: averages versus extreme values. *J. Math. Psych.*, **17**, 220-235.
6. Hood, Maurer, Ilves & Wandell (1978). Human cone saturation. *Vision Res.*, **18**, no. 8, 983-984.
7. Wandell (1979). Neural-decision making: pooling within mechanisms. *Proceedings of the joint U.S.-U.S.S.R. National Academy of Sciences meetings*, Tblisi, U.S.S.R.
8. Wandell (1979). On the taxonomy of neural coding. *Brain and Behavioral Sciences*, **2**, 243-304.
9. Wandell & Pugh (1980). A field-additive pathway detects brief-duration, long-wavelength incremental flashes. *Vision Res.*, **20**, no. 7, 613-624.
10. Wandell & Pugh (1980). Detection of long-duration, long-wavelength incremental flashes by a chromatically coded pathway. *Vision Res.*, **20**, no. 7, 625-636.
11. Wandell, Sanchez, & Quinn (1982). Detection/discrimination in the long-wavelength pathways. *Vision Res.*, **22**, 1061-1069.
12. Wandell, Welsh, & Maloney (1982). Adaptation in the long-wavelength pathways. *Vision Res.*, **22**, 1071-1074.
13. Wandell (1982). The measurement of small color differences. *Psych. Rev.*, **89**, 281-302.
14. Tennenbaum, Witkin, & Wandell (1983). A review of vision by David Marr. *Contemporary Psychology*, August, 1983.
15. Yellott, Wandell, & Cornsweet (1984). The beginnings of visual perception: the retinal image and its initial encoding. **Handbook of Physiology** - The Nervous System III, chapter 7. Edited by I. Darian-Smith, series editor V.B. Mountcastle, pp. 257-316.
16. Maloney & Wandell (1984). A model of single visual channel's response to weak test lights. *Vision Res.*, **24**, no. 7, 633-640.
17. Casson & Wandell (1984). Duration discrimination between weak test lights. *Vision Res.*, **24**, no. 7, 641-645.
18. Wandell, Ahumada, & Welsh (1984). Reaction times to weak test lights. *Vision Res.*, **24**, no. 7, 647-652.

19. Wandell (1984). Visual sensing by humans and computers. *Behavioral Res. Instrumentation, & Computers*, **16**, no. 2, 88-95.
20. Wandell (1985). Color measurement and color categorization. *J. Opt. Soc. Am.*, **2**, no. 1, 62-71.
21. Maloney & Wandell (1986). Color constancy: A method for recovering surface spectral reflectance. *J. Opt. Soc. Am.*, **3**, 29-33. Reprinted in: **Image Understanding**, edited by S. Ullman & W. Richards, pp. 215-224. Ablex Pub: Norwood, NJ, 1989. Also reprinted in: **Color (Physics-based Vision/Principles & Practice)**, edited by G.E. Healey, S.A. Shafer, & L.B. Wolff. Jones and Bartlett Publishers, Boston, MA., 1992.
22. Brainard & Wandell (1986). Analysis of the retinex theory of color vision. *J. Opt. Soc. Am.*, **3**, 1651-1661.
23. Wandell (1986). Color rendering of camera data. *Color research and applications*, **11**, no. 2, S30-S33.
24. Wandell (1987). The synthesis and analysis of color images. *IEEE, PAMI.*, **9**, no. 1, 2-13. Reprinted in: **Color (Physics-based Vision/Principles & Practice)**, edited by G.E. Healey, S.A. Shafer, & L.B. Wolff. Jones and Bartlett Publishers, Boston, MA. 1992.
25. Wandell (1987). Computational methods for color constancy. In: **Frontiers of Visual Science: Proceedings of the 1985 Symposium**. Washington, D.C.: National Academy Press, pp. 109-118.
26. Nielsen & Wandell (1988). Discrete analysis of spatial-sensitivity models. *J. Opt. Soc. Am.*, **5**, 743-755.
27. Wandell (1989). Color constancy and the natural image. *Physica Scripta J.*, **39**, 187-192.
28. Brainard, Wandell & Cowan (1989). Black light: How sensors filter spectral variation of the illuminant. *IEEE Trans. Biomed. Engr.*, **36**, 140-149.
29. Tominaga & Wandell (1989). Standard surface reflectance model and illuminant estimation. *J. Opt. Soc. Am.*, **6**, 576-584. Reprinted in: **Color (Physics-based Vision/Principles & Practice)**, edited by G.E. Healey, S.A. Shafer, & L.B. Wolff. Jones and Bartlett Publishers, Boston, MA, 1992.
30. Wandell & Brainard (1989). Towards cross-media color reproduction. *Applied Vision 1989 Tech Digest Series*, **16**, 132-137. Proceedings OSA Applied Vision Topical Meeting, July 12-14.)
31. Poirson, Wandell, Varner, & Brainard (1990). Surface characterizations of color thresholds. *J. Opt. Soc. Am.*, **7**, 783-789.
32. Poirson & Wandell (1990). Task-dependent color discrimination. *J. Opt. Soc. Am. A*, **7**, 776-782.
33. Poirson & Wandell (1990). The ellipsoidal representation of spectral sensitivity. *Vision Res.*, **30**, 647-652.
34. Tominaga & Wandell (1990). Component estimation of surface spectral reflectance. *J. Opt. Soc. Am.*, **7**, 312-317. Reprinted in: **Color (Physics-based Vision/Principles & Practice)**,



- edited by G.E. Healey, S.A. Shafer, & L.B. Wolff. Jones and Bartlett Publishers, Boston, MA., 1992.
35. Brainard & Wandell (1990). The effect of the illuminant on color appearance. *SPIE, Perceiving, Measuring, and Using Color*, **1250**, 119-130.
  36. Brainard & Wandell (1990). Calibrated processing of image color. *Color Res. & Appl.*, **15**, 266-271.
  37. Brainard & Wandell (1991). Evaluation of CIE Luv and CIE Lab as perceptual image representations. *SID International Symposium Proceedings*, May, 799-805.
  38. Brainard & Wandell (1991). A bilinear model of the illuminant's effect on color appearance. Chap. 13 in: Movshon, J.A. and Landy, M.S., editors, **Computational Models of Visual Processing**, MIT Press, 171-187.
  39. Wandell (1991). A review of: **Visual Perception. The Neurophysiological Foundations**, edited by Spillman & Werner. *Contemporary Psychology*, **36**, 476.
  40. Wandell (1991). The foundations of color measurement and color perception. *Soc. Inform. Display*, Seminar Lec. Notes, **I**, F-6.
  41. Marimont, Wandell, & Poirson (1992). Predicting receptor responses from low-dimensional descriptions of surface and illuminant spectra. *Soc. Inform. Display*, **XXII**, 795-799.
  42. Brainard & Wandell (1992). Asymmetric color-matching: How color appearance depends on the illuminant. *J. Optical Soc. Amer.*, **9**, 1433-1448.
  43. Marimont & Wandell (1992). Linear models of surface and illuminant spectra. *J. Optical Soc. Amer.*, **11**, 1905-1913.
  44. Farrell, Dispoto, Motta, Meyer, Chichilnisky & Wandell (1992). Sources of Scanner Calibration Errors. *IS&T's Eight International Congress*, 491-494.
  45. Wandell and Farrell (1993). Water into Wine: Converting Scanner RGB to Tristimulus XYZ. *Proceedings of the SPIE*, San Jose, CA.
  46. Chichilnisky, Heeger & Wandell (1993). Functional Segregation of Color and Motion Perception Examined in Motion Nulling. *Vision Res.*, **33**, no. 15, pp. 2113-2125.
  47. Poirson & Wandell (1993). The appearance of colored patterns: pattern-color separability. *J. Opt. Soc. Am. A.*, **10**, no. 12, pp. 2458-2471.
  48. Farrell & Wandell (1993). Scanner Linearity. *J. Electronic Imaging*, **2**, no. 3, pp. 225-230.
  49. Brainard, Wandell & Chichilnisky (1993). Color constancy: from physics to appearance. *Current Directions in Psychological Science*, **2**, no. 5, pp. 165-170.
  50. Wandell (1993). Color appearance: The effects of illumination and spatial resolution. *Proc. Nat. Acad. Sci., USA*, **90**, p. 1494-1501.
  51. Marimont & Wandell (1993). Matching color images: The effects of axial chromatic aberration. *J. Optical Soc. Amer.*, **12**, p. 3113-3122.



52. Engel, Rumelhart, Wandell, Lee, Shadlen & Glover (1994). fMRI of human visual cortex. *Nature*, **369**, 525.
53. Wandell & Chichilnisky (1994). Color appearance in images: Measurements and musings. *Proc Color Imaging Conf*, IS & T, Scottsdale, Arizona.
54. Chichilnisky & Wandell (1995). Photoreceptor sensitivity changes explain color appearance shifts induced by large uniform backgrounds in dichoptic matching. *Vision Res*, **35**, no. 2, 239-254.
55. Poirson & Wandell (1996). Pattern-color separable pathways predict sensitivity to simple colored patterns. *Vision Res*, **36**, No. 4, pp. 515-526.
56. Chichilnisky & Wandell (1996). Seeing gray through the ON- and OFF- pathways. *Visual Neurosci*, **13**, pp. 591-596.
57. Bauml & Wandell (1996). Color appearance of mixture gratings. *Vision Res*, **36**, no. 18, pp. 2849-2864.
58. Zhang & Wandell (1996). A spatial extension of CIELAB for digital color image reproduction. *Soc. Inform. Display*, **XXVI**. Reprinted in the *J Electronic Imaging*.
59. Zhang & Wandell (1997). Applications of a spatial extension to CIELAB. *Proceedings of the SPIE*, San Jose.
60. Zhang, Silverstein, Farrell & Wandell (1997). Color Image quality metric S-CIELAB and its application to halftone texture visibility. *Proc IEEE Computer Conf.*, San Jose, 1997.
61. Engel, Glover & Wandell (1997). Retinotopic organization in human visual cortex and the spatial precision of functional MRI. *Cerebral Cortex*, **7**, no. 2, pp. 181-192.
62. Engel, Zhang & Wandell (1997). Colour tuning in human visual cortex measured with functional magnetic resonance imaging. *Nature*, **388** (6637), 68-71.
63. Zhang, Setiwan & Wandell (1997). Image distortion maps. *Proc Color Imaging Conference*, Scottsdale, AZ.
64. Teo, Sapiro & Wandell (1997). Creating Connected Representations of Cortical Gray Matter for Functional MRI Visualization, *IEEE Med. Transactions*, **16** (6), 852-863.
65. Zhang & Wandell (1998). Color image fidelity metrics evaluated using image distortion maps. *Signal Processing*, **70**, 201-214.
66. Baseler, Morland & Wandell (1998). Extrastriate visual signals in the absence of striate cortex in a human hemianope. *NeuroImage*, **7**, no. 4, S20.
67. Wandell (1999). Computational neuroimaging of human visual cortex. *Annual Review of Neuroscience*, **22**, 145-173.
68. Baseler, Morland & Wandell (1999). Topographic organization of human visual areas in the absence of input from primary cortex. *J. Neurosci.*, **19** (7), 2619-2627.
69. Chichilnisky & Wandell (1999). Trichromatic opponent color classification. *Vision Res.*, **39** (20), 3444-3458.

70. Hel-Or, Zhang & Wandell (1999). Adaptive cluster dot dithering. *J. Electronic Imaging*, **8**(2), 133-144.
71. Wandell (1999). Computational neuroimaging: Color representations and processing. Chap. 20 in **The New Cognitive Neurosciences**, 2nd edition. Ed. Gazzaniga, MIT Press, 291-303.
72. Wandell, Catrysse, DiCarlo, Yang & El Gamal (1999). Multiple capture single image architecture with a CMOS sensor. In *Proceedings of the International Symposium on Multispectral Imaging and Color Reproduction for Digital Archives*. Chiba, Japan, October 21-22, pp. 11-17. (Society of Multispectral Imaging of Japan.)
73. Farrell, Cupitt, Saunders & Wandell (1999). Estimating spectral reflectances of digital images of art. In *Proceedings of the International Symposium on Multispectral Imaging and Color Reproduction for Digital Archives*. Chiba, Japan, October 21-22, pp. 58-64. (Society of Multispectral Imaging of Japan.)
74. Tominaga, Ebuisi & Wandell (1999). Color temperature estimation of scene illumination. *Proceedings of the Seventh Color Imaging Conference* (sponsored by IS&T/SID), November 16-19, Scottsdale, AZ, 42-47.
75. Catrysse, Wandell & El Gamal (1999). Comparative analysis of color architectures for image sensors. *Image Sensor, Proceedings of SPIE 99*, **3650**, 26-35.
76. Dougherty, Press & Wandell (1999). Perceived speed of colored stimuli. *Neuron*, **24**, 893-899.
77. Wandell, Poirson, Newsome, Baseler, Boynton, Huk, Gandhi & Sharpe (1999). Color signals in human motion-selective cortex. *Neuron*, **24**, 901-909.
78. Seidemann, Poirson, Wandell & Newsome (1999). Color signals in area MT of the macaque monkey. *Neuron*, **24**, 911-917.
79. Chen, Catrysse, El Gamal, & Wandell (1999). How small should pixel size be? *Proc. SPIE*, **3965**, 53.
80. DiCarlo & Wandell (1999). Rendering high dynamic range images. *Proc SPIE*, **3965**, 47
81. Wandell, Baseler, Poirson, Boynton & Engel (1999). Computational neuroimaging: Color tuning in two human cortical areas measured using fMRI. In **Color Vision: from molecular genetics to perception**. Eds. Gegenfurtner and Sharpe, Cambridge University Press, 269-282.
82. Wandell, Chial, & Backus (2000). Visualization and measurement of the cortical surface. *J. Cognitive Neuroscience*, **12**, 739-752.
83. DiCarlo & Wandell (2000). Illuminant Estimation: Beyond the Bases. *Proceedings of the Eighth Color Imaging Conference* (sponsored by IS&T/SID), 91-96.
84. Tominaga, Ebuisi & Wandell (2000). Sensor Correlation and Illuminant Estimation. *Proceedings of the Eighth Color Imaging Conference* (sponsored by IS&T/SID), Scottsdale, AZ, 42-47.
85. Color spaces and metrics. K-H. Bauml, X. Zhang, and B. Wandell (2001). In **Vision Models and**

**Applications to Image and Video Processing.** Edited by C. J. van den Branden Lambrecht, Kluwer Academic Publishers.

86. Tominaga, Ebisui, & Wandell (2001). Scene illuminant classification: brighter is better. *Journal of the Optical Society of America, A*, **18**(1), 55-64.
87. Xiao, DiCarlo, Catrysse, & Wandell (2001). Image analysis using modulated light sources. *Proceedings of the SPIE, Image Sensors*. **4306**, 22-30.
88. Press, Brewer, Dougherty, Wade & Wandell (2001). Visual areas and spatial summation in human visual cortex. *Vision Research*, **41**, 1321-1332
89. Morland, Baseler, Hoffmann, & Wandell (2001). Abnormal retinotopic representations in human visual cortex revealed by fMRI. *Acta Psychologica*, **107**(1-3), 229-47.
90. DiCarlo, Xiao, & Wandell (2001). Illuminating Illumination. *Proceedings of the Ninth Color Imaging Conference* (sponsored by IS&T/SID), Scottsdale, AZ.
91. Catrysse, Wandell, & El Gamal (2001). An Integrated Color Pixel in 0.18 um Technology. *Proceedings of the International Electron Devices Meeting*, Washington D.C.
92. Tominaga & Wandell (2002). Natural Scene Illuminant Estimation Using The Sensor Correlation Method. *Proceedings of the IEEE*, **90** (1).
93. Wandell, El Gamal, Girod (2002). Image Acquisition Systems and Biological Vision: Common Principles. *Proceedings of the IEEE*, **90**(1).
94. Baseler, Brewer, Sharpe, Morland, Jägle, & Wandell (2002). Reorganization of human cortical maps caused by inherited photoreceptor abnormalities. *Nature Neuroscience*, **5**, 364-370.
95. Catrysse & Wandell (2002). The optical efficiency of image sensor pixels. *J. Opt. Soc. Am. A., J. Optical Soc. Am. A*, **19**(8), 1610-1620
96. Hel-Or & Wandell (2002). Object-based illumination classification. *Pattern Recognition*, **35**, 1723-1732.
97. Wade, Brewer, Rieger, & Wandell (2002). Functional Measurements of Human Ventral Occipital Cortex: Retinotopy and Color. *Philosophical Transactions of the Royal Society*, **357**(1424), 963-973.  
PMC1693014
98. Wade & Wandell (2002). Cone-independent light adaptation measured using fMRI. *J. Neurosci*, **22** (18), 8148-8157.
99. Brewer, Press, Logothetis, & Wandell (2002). Visual Areas in Macaque Cortex Measured Using Functional MRI. *J. Neurosci*, **22**(23), 10416-10426.
100. Xiao, DiCarlo, Catrysse, & Wandell (2002). Calibrated High Dynamic Range Natural Scenes for Digital Photography. In *Tenth Color Imaging Conference: Color Science, Systems, and Applications*.
101. Ercan, Xiao, Liu, Lim, El Gamal & Wandell (2002). Experimental High Speed CMOS Image Sensor System and Applications. In *IEEE Sensors Conference*, Orlando, FL.

102. Tominaga & Wandell (2002). Natural scene illuminant estimation using the sensor correlation method. *Proceedings of the IEEE*, **90** (1).
103. Wandell & Wade (2003). Functional imaging of the visual pathways. (Special Editors on Neuro-Ophthalmology, J. Barton and M. Rizzo.) *Neurological Clinics*, **21**, 417-443.
104. Dougherty, Koch, Brewer, Fischer, Modersitzki & Wandell (2003). Visual field representations and locations of visual areas V1/2/3 in human visual cortex. *Journal of Vision*, **3**(10), 586-598.
105. Wandell & Silverstein (2003). Digital Color Reproduction. Chap. 8 in **The Science of Color** 2nd edition, Ed. Shevell. Published by the Optical Society of America, 281-316.
106. Fine, Wade, Brewer, May, Goodman, Boynton, Wandell & MacLeod (2003). Long-term deprivation affects visual perception and cortex. *Nature Neuroscience* **6**(9), 915-916
107. DiCarlo & Wandell (2003). Spectral estimation theory: beyond linear but before Bayesian. *JOSA A*, **20**(7), 1261-70.
108. Catrysse & Wandell (2003). Integrated color pixels in 0.18-um CMOS technology. *JOSA A*, **20** (12), 2293-2306.
109. Liu & Wandell (2005). Specializations for chromatic and temporal signals in human visual cortex. *J. Neurosci*, **25**(13), 3459-3468.
110. Logothetis & Wandell (2005). Interpreting the BOLD Signal. *Annual Review of Physiology*. Volume 66, pp. 735-769.
111. Deutsch, Dougherty, Bammer, Siok, Gabrieli, & Wandell (2005). Children's reading performance is correlated with white matter structure measured by diffusion Tensor Imaging. *Cortex*, **41**, 354-363.
112. Catrysse & Wandell (2005). Roadmap for CMOS sensors: Moore meets Planck and Sommerfeld. *Proceedings of the SPIE*, **5294**, Electronic Imaging.
113. Maeda, Catrysse & Wandell (2005). Integrating lens design with digital camera simulation. *Proceedings of the SPIE*, **5294**, Electronic Imaging.
114. Xiao, Farrell & Wandell (2005). Psychophysical thresholds and digital camera sensitivity: The thousand photon limit. *Proceedings of the SPIE*, **5294**, 124-131.
115. Dougherty, Ben-Shachar, Bammer, Brewer & Wandell (2005). Functional organization of human occipital-callosal fiber tracts. *Proc Natl Acad Sci*, **102**(20), 7350-7355. PMID: PMC1129102
116. Smirnakis SM, Brewer AA, Schmid MC, Tolias AS, Schuz A, Augath M, Inhoffen W, Wandell BA, Logothetis NK. (2005). Lack of long-term cortical reorganization after macaque retinal lesions. *Nature*, **435**(7040), 300-307.
117. Brewer, Dougherty & Wandell (2005). Visual field map clusters in human cortex. *Philos Trans R Soc Lond B Biol Sci*, **360**(1456), 693-707.

118. Brewer, Liu, Wade & Wandell (2005). Stimulus selectivity in human ventral occipital cortex. *Nature Neurosc*, **8**(8),1102-1109.
119. Sherbondy, Akers, Mackenzie, Dougherty, Wandell. (2005). Exploring connectivity of the brain's white matter with dynamic queries. *IEEE Trans Vis Comput Graph*, **11**(4), 419-30.
120. Dougherty, Ben-Shachar, Deutsch, Potanina, Bammer, & Wandell (2005). Occipital-Callosal Pathways in Children: Validation and Atlas Development. *Annals of the New York Academy of Sciences*, **1064**, 98-112.
121. Barberini, Cohen, Wandell & Newsome (2005). Cone signal interactions in direction-selective neurons. *Journal of Vision*, **5**, 603-621.
122. Wandell & Dougherty (2006). Computational Neuroimaging: Maps and Tracts in the Human Brain. *Proc. of the SPIE-IS&T Electronic Imaging*, **6057**, 1-12.
123. Cornelissen, Wade, Vladusich, Dougherty, Wandell (2006). No fMRI evidence for brightness and colour filling-in in early human visual cortex. *J. Neurosci*, **26**, 3634-3641.
124. Wandell, Dumoulin, Brewer (2006). Computational Neuroimaging; Color Signals in the Visual Pathways. *Japanese Journal of Neuro-Ophthalmology*, vol 23, pp. 324-343.
125. Liu, Ashida, Smith and Wandell (2006). Assessment of stimulus induced changes in human V1 visual field maps. *J. Neurophysiology*. V. 96, pp. 3398-3408.
126. Ben-Shachar, Dougherty, Deutsch, and Wandell (2006). Differential sensitivity to words and shapes in ventral occipito-temporal cortex. *Cerebral Cortex*, doi:10.1093/cercor/bhl071
127. Wandell, Dumoulin, Brewer (2008). Visual Cortex in Humans. In Larry R. Squire, Editor-in-Chief, **Encyclopedia of Neuroscience**, Academic Press, Oxford, 2008.
128. Ben-Shachar, Dougherty, Wandell (2007). White matter pathways in reading. *Current Opinions in Neurobiology*, Volume 17 pp. 258-270.
129. Dougherty, Ben-Shachar, Deutsch, Hernandez, Fox, and Wandell (2007). Temporal-callosal pathway diffusivity predicts phonological skills in children. *PNAS*, vol. 104, pp. 8556-8561. PMC1895988
130. B. A. Wandell, S.O. Dumoulin and A. A. Brewer (2007). Visual Field Maps in Human Cortex. *Neuron*, v. 56 , p. 366-383
131. Ress, D., Glover, G., Liu, J., Wandell, B. (2007). Laminar profiles of functional activity in the human brain, *NeuroImage*, Volume 34, Issue 1, 1 January, Pages 74-84
132. M. Ben-Shachar, RF Dougherty, GK Deutsch, BA Wandell (2007). Contrast responsivity in MT+ correlates with phonological awareness and reading measures in children. *Neuroimage*, v. 37, pp. 1396-1406. PMC2034404

133. Y. Masuda, S. O. Dumoulin, S. Nakadomari and B.A. Wandell (2008). V1 Projection Zone Signals in Human Macular Degeneration Depend on Task, not Stimulus. *Cerebral Cortex*.  
PMC2733314
134. Wandell (2008), What's in your mind? *Nature Neuroscience*, vol. 11, No. 4. *Commentary on* Identifying natural images from human brain activity. Kay et al., (2008) *Nature*, vol. 452, pp. 352-355
135. Wandell (2008). *Current Biology*, Colour vision: Cortical circuitry for appearance. *Commentary on* Perception matches selectivity in the human anterior color center. Murphey et al., (2008) *Current Biology* v. 18, pp. 216-220.
136. Sherbondy, A. J., Dougherty, R. F., Ben-Shachar, M., Napel, S., & Wandell, B. A. (2008). ConTrack: Finding the most likely pathways between brain regions using diffusion tractography. *Journal of Vision* 8(9):15, pp. 1-16.  
PMC2696074
137. J. E. Farrell, G. Ng, X. Ding, G. Larson and B. A. Wandell (2008). A Display Simulation Toolbox for Image Quality Evaluation. *Journal of Display Technology*, vol. 4, No. 2, pp. 262-270.
138. Serge O. Dumoulin and Brian A. Wandell (2007). Population receptive field estimates in human visual cortex. *Neuroimage*. Volume 39, Issue 2, 15 January 2008, pp. 647-660.
139. Jin Lee, S. Dumoulin, E. Saritas, G. Glover, B. Wandell, D. Nishimura and J.M. Pauly (2008). Full brain coverage and high-resolution imaging capabilities of passband b-SSFP fMRI at 3T. *Magnetic Resonance in Medicine* 59, pp. 1099-1110.  
PMC2694041
140. Sherbondy, A. J., Dougherty, R. F., Napel, S., & Wandell, B. A. (2008). Identifying the human optic radiation using diffusion imaging and fiber tractography, *Journal of Vision*. Vol. 8, no. 10, pp 1-11.  
PMC2759943
141. M. Parmar, S. Lancel, B. Wandell Spatio-spectral reconstruction of the multispectral datacube using sparse recovery (2008). *ICIP*, 15<sup>th</sup> IEEE International Conference. Pg 473.
142. A. Wade, M. Augauth, N Logothetis, and B. Wandell (2008). fMRI measurements of color in macaque and human *Journal of Vision* 8(10):6, pp. 1-19  
PMC3045694
143. M. Parmar and B. Wandell. Interleaved imaging: an imaging system design inspired by rod-cone vision. Proc of the SPIE, 2009. Vol. 7250, 725008  
doi:10.1117/12.806367
144. H. Horiguchi, S. Nakadomari, M. Misaki and B. Wandell (2009). Two temporal channels in human V1 identified using fMRI. *Neuroimage*. Vol 47, No. 1, pp. 273-280.  
PMC2743398
145. K. Amano, B. Wandell, S. Dumoulin (2009). Visual field maps, population receptive fields and visual field coverage in the human MT+ complex. *J. Neurophysiology*.  
PMC2777836
146. S. Lancel, M. Parmar and B. Wandell. Dictionaries for sparse representation and recovery of reflectances (2009). Proc. SPIE, Vol. 7246, 72460D.  
doi:10.1117/12.813769

147. F. Xiao, J. Farrell, P. Catrysse and B. Wandell. Mobile Imaging: The big challenge of the small pixel. (2009). *Proc. SPIE*, Vol 7250, 725000K:  
doi:10.1117/12.806616
148. J. Farrell, J. Xu, K. Larson, and B. Wandell. Visual preference for ClearType technology. *SID Symposium Digest of Technical Papers* -- June 2009 -- Volume 40, Issue 1, pp. 702-705
149. B. A. Wandell, S.M. Smirnakis (2009). Plasticity and stability of visual field maps in adult primary visual cortex. *Nature Reviews Neuroscience*, Dec;10(12):873-84. Epub 2009 Nov 11.  
PMC2895763
150. Jessica M. Tsang, Robert F. Dougherty, Gayle K. Deutsch, Brian A. Wandell, and Michal Ben-Shachar (2009). Frontoparietal white matter diffusion properties predict mental arithmetic skills in children, vol. 106 no. 52, pp. **22546-22551** *PNAS (USA)*.  
PMC2799736
151. Sherbondy, A. J., Dougherty, R. F., Ananthanarayanan, R. Modha, D.S. and Wandell, B. A. (2009). Think global, act local: Projectome estimation with BlueMatter .G.Z. Yang et al. (Eds): *MICCAI 2009* pp. 861-868  
PMCID: PMC3076280
152. Netta Levin, Serge O Dumoulin, Jonathan Winawer, Robert F Dougherty, Brian A Wandell (2010). Cortical maps and white matter tracts following long period of visual deprivation and retinal image restoration. Volume 65, Issue 1, 14 January 2010, pp. 21-31 *Neuron*.  
NIHMS ID 223995
153. J. Winawer, H. Horiguchi, R. Sayres, K. Amano, B. Wandell (in press). Mapping hV4 and ventral occipital cortex: The venous eclipse. *Journal of Vision*. **V. 10** 10(5),1,1-22  
PMC 2903663
154. High-speed Document Sensing and Misprint Detection in Digital Presses (2010). Guillaume Leseur, Nicolas Meunier, Georgios Georgiadis, Lily Huang, Jeffrey DiCarlo, Brian A. Wandell, and Peter B. Catrysse. *Proc of the SPIE*, 2010.
155. S. Prakash, SO Dumoulin, N Fischbin, BA Wandell, YJ Liao. Congenital achiasma and see-saw nystagmus in VACTERL syndrom. *J. Neuroophthalmol.*, 2010, March v. 30 no. 1, pp. 45-48.  
NIHMS ID 256527
156. Y. Masuda, H. Horiguchi, S. O. Dumoulin, S. Miyauchi, S. Nakadomari, and B. A. Wandell. Task-dependent V1 responses in human retinitis pigmentosa (2010). *Invest. Ophthalmol. Vis. Sci.* October 2010 vol. 51 no. 10 5356-5364.  
NIHMS 202696
157. B. Wandell and J. Winawer. Imaging retinotopic maps in the human brain (2011). *Vision Research*.  
doi:10.1016/j.visres.2010.08.004  
PMC3030662
158. Joyce Farrell; Mike Okincha; Manu Parmar; Brian Wandell. Using visible SNR (vSNR) to compare the image quality of pixel binning and digital resizing. *Proceedings SPIE* Vol. 7537. Digital Photography VI, Francisco Imai; Nitin Sampat; Feng Xiao, Editors.
159. J. Farrell, P. Catrysse, and B. Wandell. The Digital Camera is an Imaging System. Conference Paper. Imaging Systems (IS) Tucson, AZ,



June 7, 2010 Joint  
AIO/IS/META/ORS Poster Session  
(JTUA).

160. B. A. Wandell. The neurobiological basis of seeing words (2011). *Ann. N.Y. Acad. Sci.* Issue: The Year in Cognitive Neuroscience.  
NIHMS 266321
161. N. Stikov, L.M. Perry, A. Mezer, E. Rykhlevskaia, B. Wandell J.M. Pauly, R.F. Dougherty (2011). Bound pool fractions complement diffusion measures to describe white matter micro and macrostructure. *NeuroImage* V.54, Issue 2, Pages 1112-1121.  
PMC2997845
162. J. D. Yeatman, R. F. Dougherty, E. Rykhlevskaia, A. J. Sherbondy, G. K. Deutsch, B. A. Wandell and M. Ben-Shachar (2011). Anatomical Properties of the Arcuate Fasciculus Predict Phonological and Reading Skills in Children. *J. of Cognitive Neuroscience*. Online May 13, 2011. (doi:10.1162/jocn\_a\_00061)  
NIHMS 332282
163. M. Ben-Shachar, R. F. Dougherty, G. K. Deutsch, and B. A. Wandell (2011). The Development of Cortical Sensitivity to Visual Word Forms. *Journal of Cognitive Neuroscience*. September 2011, Vol. 23, No. 9, Pages 2387-2399. Online July 6, 2011 (doi:10.1162/jocn.2011.21615)  
NIHMS 332290
164. A. Rauschecker, R. Bowen, L.M. Perry, A. Kevan, R. F. Dougherty and B. Wandell. Visual Feature-Tolerance in the Reading Network (2011). *Neuron*. Volume 71, Issue 5, 8, pp. 941-953 PMID 3180962
165. George Nune, Jonathan Winawer, Andreas M. Rauschecker, Mohammad Dastjerdi, Brett L. Foster, Brian Wandell, and Josef Parvizi (2011). Problem of signal contamination in interhemispheric dual-sided subdural electrodes. *Epilepsia*, v. 52 no. 11, e176-180.  
PMC3644859
166. B. Wandell, A. Rauschecker, J. Yeatman. Learning to See Words (2012) *Annu. Rev. Psychol.* V. 63: pp. 6.1–6.23 NIHMS 332298
167. Hoffman, Kaule, Levin, Masuda, Kumar, Gottlob, Horiguchi, Dougherty, Stadler, Wylinski, Speck, Kanowski, Liao, Wandell, Dumoulin (2012). Plasticity and stability of the visual system in human achiasma. *Neuron*, Vol. 75, pp. 393-401. NIHMS396086
168. J. Yeatman, A. Rauschecker and B. Wandell (2012). Anatomy of the visual word form area: Adjacent cortical circuits and long-range white matter connections. *Brain and Language*. NIHMS 375922
169. B. Wandell and E.J. Chichilnisky (2012). Squaring cortex with color. *Nature Neuroscience*, 15, 6, 809-810.
170. A. Rauschecker, R. Bowen, J. Parvizi, and B. Wandell (2012). Position sensitivity in the visual word form area. *PNAS*. V. 109, no. 24, pp. E1568-E1577. PMC3386120
171. J. Farrell, P. Catrysse, B. Wandell (2012). Digital camera simulation. *Applied Optics*. V. 51, no. 4, pp. A80-A90.
172. J. Farrell, S. Eldar, K. Larson, T. Matskewich, and B. Wandell (2012). Optimizing subpixel rendering using a perceptual metric. *J. Society for Information Display*. V. 19, pp. 513-519.

173. J.D. Yeatman, R.F. Dougherty, M Ben-Shachar and B. Wandell (2012). The development of white matter and reading skills. *PNAS (USA)*. Oct 8. PMC3497768
174. B.A. Wandell and J.D. Yeatman (2013). Biological development of reading circuits. *Current Opinions in Neurobiology*. NIHMSID # 431534
175. H. Horiguchi, J. Winawer, R.F. Dougherty and B. Wandell (2012). Human color sensitivity: Trichromacy revisited. *PNAS (USA)*. 2012 Dec. 17. [www.pnas.org/cgi/doi/10.1073/pnas.1214240110](http://www.pnas.org/cgi/doi/10.1073/pnas.1214240110) PMC3549098
176. Jason D. Yeatman, Robert F. Dougherty, Nathaniel Myall, Brian A. Wandell and Heidi M. Feldman (2012). Tract Profiles of White Matter Properties: Automating Fiber-Tract Quantification *PLoS One*. 7(11). e49790. doi:10.1371/journal.pone.0049790 [PMC3498174](https://pubmed.ncbi.nlm.nih.gov/2498174/)
177. A. Mezer, J.D. Yeatman, N. Stikov, K. N. Kay, N-J Cho, R.F. Dougherty, L.M. Perry, J. Parvizi, L.H. Hua, K. Butts-Pauly, & B.A. Wandell (2013). Quantifying the local tissue volume and composition in individual brains with magnetic resonance imaging. *Nature medicine*. NIHMSID # 442949
178. KV Haak, J Winawer, BM Harvey, R Renken, SO Dumoulin, BA Wandell, F.W. Cornelissen (2013). Connective field modeling. *Neuroimage* 66, 376-384
179. J. Winawer, K.N. Kay, B. Foster, A. Rauschecker, J. Parvizi, and B.A. Wandell (2013). Asynchronous Broadband Signals Are the Principal Source of the BOLD Response in Human Visual Cortex. *Current Biology*. Vol 23, Issue 13, PMID 3710543
180. K.N. Kay, J. Winawer, A. Rokem, A. Mezer and B.A. Wandell (2013). A Two-Stage Cascade Model of BOLD Responses in Human Visual Cortex. *PLOS Computational Biology*, Volume 9 Issue 5 , e1003079 [PMC3710543](https://pubmed.ncbi.nlm.nih.gov/2498174/)
181. K.N. Kay, J. Winawer, A. Mezer, B.A. Wandell (2013). Compressive spatial summation in human visual cortex. *J Neurophysiol* (April 24, 2013). doi:10.1152/jn.00105.2013 [PMC3667759](https://pubmed.ncbi.nlm.nih.gov/2498174/)
182. KN Kay, A Rokem, J Winawer, RF Dougherty, BA Wandell (2013). GLMdenoise: a fast, automated technique for denoising task-based fMRI data. *Frontiers in neuroscience* v. 7
183. B. A. Wandell, J. Winawer, K. N. Kay. Computational modeling of responses in human visual cortex. In **Brain Mapping: An Encyclopedic Reference** (Edited by Thompson and Friston.)
184. JD Yeatman, AM Rauschecker, BA Wandell (2013). Anatomy of the visual word form area: adjacent cortical circuits and long-range white matter connections. *Brain and language* 125 (2), 146-155
185. Qiyuan Tian, Steven Lansel, Joyce E. Farrell, and Brian A. Wandell (2014). Automating the design of image processing pipelines for novel color filter arrays: Local, Linear, Learned (L3) method. Presented at the IS&T/SPIE Electronic Imaging 2014, San Francisco, CA, 2014 *Proc. SPIE*.

186. J.D. Yeatman, B.A. Wandell and A. A. Mezer (Aug. 8, 2014). Lifespan maturation and degeneration of human brain white matter. *Nature Communications*. 5, doi:10.1038/ncomms5932
187. Franco Pestilli, Jason D Yeatman, Ariel Rokem, Kendrick N Kay & Brian A Wandell (2014). Evaluation and statistical inference for human connectomes. *Nature Methods*. doi:10.1038/nmeth.3098
188. K. Main, F Pestilli, A. Mezer, J. Yeatman, R. Martin, S. Phillips, and B.A. Wandell (2014). Speed discrimination predicts word but not pseudo-word reading rate in adults and children. *Brain and Language*.
189. H. Horiguchi, B. A. Wandell, J. Winawer (2014). A predominantly visual subdivision of the right temporoparietal junction (vTPJ) *Cerebral Cortex*.
190. J.E. Farrell and B.A. Wandell (in press). Image Systems Engineering. In **Image Systems** (Edited by Kriss, Wiley).
191. RT Johnson, JD Yeatman, BA Wandell, MH Buonocore, DG Amaral, C Wu Nordahl (2014). Diffusion properties of major white matter tracts in young, typically developing children. *Neuroimage*, v. 88, pp. 143-154.
192. A Lin, JE Farrell, BA Wandell (2014). Spectral Optics Simulation for Rapid Image Systems Prototyping: Ray-tracing, Diffraction and Chromatic Aberration. *Applied Industrial Optics: Spectroscopy, Imaging and Metrology*, JW3A. 2
193. JE Farrell, H Jiang, J Winawer, DH Brainard, BA Wandell (2014). Modeling Visible Differences: The Computational Observer Model *SID Symposium Digest of Technical Papers* 45 (1), 352-356
194. S. Ogawa, H. Takemura, H. Horiguchi, M. Terao, T. Haji, F. Pestilli, J. D Yeatman, H. Tsuneoka, B. A Wandell, Y. Masuda (2014). White matter consequences of retinal receptor and ganglion cell damage. *Investigative Ophthalmology and Vision Science*.
195. D. Hermes-Miller, K. Miller, B. Wandell, J. Winawer (2014). Stimulus dependence of gamma oscillations in human visual cortex. *Cerebral Cortex*
196. J.D.Yeatman, K.S. Weiner, F. Pestilli, A. Rokem. A. Mezer, and B. A. Wandell (2014). The vertical occipital fasciculus: A century of controversy resolved by in vivo measurements, *PNAS*. doi: 10.1073/pnas.141850311