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### **EDUCATION**

- 1984 Ph.D. University of Chicago, Chicago, IL. (Color & Vision)  
1973 B.S. Orta Dogu Teknik Universitesi, Ankara, Turkiye. (Probability & Measure Theory)

### **PROFESSIONAL POSITIONS**

- 2007- SUNY Distinguished Professor, Graduate Center for Vision Research, State University of New York, College of Optometry, New York, NY.  
1998-07 Professor, Vision Science, State University of New York, College of Optometry, New York, NY.  
1995-98 Senior Research Scientist, State University of New York, College of Optometry, New York, NY.  
1994-95 Vision Research Investigator, Lighthouse Research Institute, New York, NY.  
1991-94 Associate Professor, Dept. of Psychology, Columbia University, New York, NY.  
1985-91 Assistant Professor, Dept. of Psychology, Columbia University, New York, NY.  
1984-85 Postdoctoral Fellow, AT&T Bell Laboratories, Murray Hill, NJ.  
1980-84 Research Assistant, Dept. of Behavioral Sciences and Dept. of Ophthalmology, University of Chicago, Chicago, IL.  
1979-80 Instructor, Dept. of Psychology, Roosevelt University, Chicago, IL.  
1975-77 Statistician, Social Psychiatry Study Center, University of Chicago, Chicago, IL.

### **RESEARCH AWARDS**

- 2001-16 NIH R01 EY13312 "Neural basis of shape from texture".  
1988-2013 NIH R01-EY07556 "Mechanisms of color detection, induction and adaptation".  
2001 Macquarie University Visiting Fellow "Functional aspects of cortical adaptation". Macquarie University, Sydney, Australia.  
1999 DAAD A/99/42594 "Color adaptation to complex scenes". Max Planck Institute, Tübingen, Germany.  
1997-98 SIVR 97-98-093 "Three-dimensional shape and motion distortions".  
1996-97 SIVR 96-97-075 "Visual processing of object motion".  
1985-87 Columbia University Biomedical Research Grant "Color vision".

## HONORS

W. S. Stiles Lecture. London, England, (2010).

Chancellor's Award for Excellence in Scholarship and Creative Activities, State University of New York (2002).

Chancellor's Research Recognition Award, State University of New York (2002).

Fellow of the Optical Society of America (2000).

## BOOKS

"Three-Dimensional Shape Perception", Q. Zaidi (ed), (Authors: Koenderink & Van Doorn, Domini & Caudek, Mamassian, Tse, Fleming & Adelson, Qian, Li & Zaidi) Springer-Verlag, New York, (Expected 2014).

## PUBLICATIONS

Zaidi, Q, Li, A, Wong, C, Cohen, E, and Meng, X. Hardwired and plastic mechanisms in 3-D shape perception, in *Shape Perception in Human and Computer Vision: An interdisciplinary Perspective*, edited by Dickinson and Pizlo, Springer 2013.

Zaidi, Q, Victor, J, McDermott, J, Geffen, M, Bensmaia, S, and Cleland, T, Perceptual Spaces: Mathematical structures to neural mechanisms. *Journal of Neuroscience*, (In press).

Jain, A. and Zaidi, Q. Efficiency of extracting stereo-driven object motions. *Journal of Vision*, 13 (1), 2013

Cohen, E. H. and Zaidi, Q. Symmetry in context: Saliency of mirror symmetry in natural patterns. *Journal of Vision*, 13 (6), 2013

Zaidi, Q, Jain, A and Meng, X. Perception of Non-rigid 3-D Shapes, in *The Oxford Handbook of Computational Perceptual Organization*, edited by Gepshtein and Maloney (Invited).

Zaidi, Q, Jain, A, and Cohen, E. Perception of Non-rigid 3-D Motions, in *The Oxford Handbook of Computational Perceptual Organization*, edited by Gepshtein and Maloney (Invited).

Geisel, M. and Zaidi, Q. Frequency based heuristics for material perception. *Journal of Vision* (Under revision).

Kremkow, J, Jin, J, Kombar, S, Wang, Y, Lashgari, R, Li, X, Jansen, M, Zaidi, Q, Alonso, J M. Neuronal nonlinearity explains greater visual spatial resolution for darks than lights *Proceedings National Academy of Sciences*, (Under revision).

S J Kombar, J Kremkow, Q Zaidi, Alonso, J M. Neuronal and perceptual differences in the temporal processing of darks and lights. *Neuron*, (Under revision).

Ennis, R., Lee, B. and Zaidi, Q, The role of fixational eye-movements in context effects on temporal sensitivity. *Current Biology*, (Under revision).

Bachy, R, and Zaidi, Q. Factors governing the speed of color adaptation in foveal versus peripheral vision. *J. Opt. Soc. Am.*, (Submitted).

Jansen, M, Li, X, Lashgari, R, Kremkow, J, Bereshpolova, Y, Swadlow, H, Zaidi, Q, and Alonso, J M. Chromatic spatial frequency tuning of local field potentials in awake primary visual cortex. *Journal of Neuroscience*, (Submitted).

Zaidi, Q, Ennis, R., Cao, D. and Lee, B. Neural locus of color afterimages. *Current Biology*, 22(3), 220 - 224, 2012.

Zaidi, Q., Visual inferences of material changes: color as clue and distraction. *Wiley Interdisciplinary Reviews: Cognitive Science*, 2: n/a. doi: 10.1002/wcs.148, 2011.

Meng, X. and Zaidi, Q. Visual effects of haptic feedback are large but local. *PLoS ONE* 6(5): e19877. doi:10.1371/journal.pone.0019877, 2011.

Komban, S.J., Alonso, J.M. and Zaidi, Q. Darks are processed faster than lights. *The Journal of Neuroscience*, 8 June 2011, 31(23):8654-8658.

Jain, A and Zaidi, Q. Discerning non-rigid 3-D shapes from motion cues. *Proceedings National Academy of Sciences*. January 25, 2011 vol. 108 no. 4 1663-1668.

Cohen, E. Jain, A and Zaidi, Q. The utility of shape attributes in deciphering movements of non-rigid objects *Journal of Vision*, 10(11):29, 1–15, 2010.

Yoonessi, A. and Zaidi, Q. The role of color in recognizing material changes *Ophthalmic and Physiological Optics* 30 (5), 626-631, 2010.

Li, A. and Zaidi, Q. Release from Cross-Orientation Suppression Facilitates 3D Shape Perception. *PLoS ONE* 4(12): e8333. doi:10.1371/journal.pone.0008333, 2009.

Lee, R.J., Mollon, J., Zaidi, Q. and Smithson, H.E. Latency characteristics of the short-wavelength-sensitive cones and their associated pathways. *Journal of Vision*, 9(12), 1-17, 2009.

Zaidi, Q. and Bostic, M. Color strategies for object identification, *Vision Res.* 48(26):2673-81, 2008.

Li, A., Tzen, B., Yagdarova, A. and Zaidi, Q. Neural basis of 3-D shape aftereffects. *Vision Research* 48(2):244-252, 2008.

Cohen, E. and Zaidi, Q. Fundamental failures of shape constancy resulting from cortical anisotropy. *Journal of Neuroscience*, 27(46):12540-12545, 2007.

Cohen, E.H, Zaidi, Q. The oblique effect and three-dimensional shape. *Visual Cognition* 15:80-83, 2007.

Zaidi, Q. and Li, A. Three-dimensional shape from chromatic orientation flows. *Visual Neuroscience*, 3-4(23), 323-330, 2006.

Sun, H., Smithson, H., Lee, B., and Zaidi, Q. Do magnocellular and parvocellular ganglion cells avoid short-wavelength cone input? *Visual Neuroscience*, 3-4(23), 441-446, 2006.

Robilotto, R. and Zaidi, Q. Lightness identification of patterned three-dimensional real objects. *Journal of Vision*, 6(1), 18-36, 2006.

Sun, H., Smithson, H., Lee, B., and Zaidi, Q. Specificity of cone inputs to macaque retinal ganglion cells. *J. Neurophysiology*, 95: 837-849, 2006. (Commentary by R. Shapley, *J Neurophysiol* ; 95: 587-588).

Zaidi, Q. The role of adaptation in color constancy. In "Fitting the Mind to the World: Adaptation and Aftereffects in High-Level Vision" Volume 2, *Advances in Visual Cognition Series*, Ed. Clifford, C. & Rhodes, G., Oxford University Press 103-131, 2005.

Zaidi, Q. A sculpture technique for rendering complex impossible objects. *Perception*, 34, 121-132, 2005.

Li, A. and Zaidi, Q. Three-dimensional shape from non-homogeneous textures: carved and stretched surfaces. *Journal of Vision*, 4(10), 860-878, 2004.

Smithson, H. and Zaidi, Q. Color constancy in context: roles of local adaptation and reference levels. *Journal of Vision*, Special issue on Perception of Color and Material Properties in Complex Scenes 4(9), 693-710, 2004.

Khang, B. and Zaidi, Q. Illuminant color perception of spectrally filtered spotlights. *Journal of Vision*, Special issue on Perception of Color and Material Properties in Complex Scenes 4(9), 680-692, 2004.

Robilotto, R. and Zaidi, Q. Limits of lightness identification for real objects under natural viewing conditions. *Journal of Vision*, Special issue on Perception of Color and Material Properties in Complex Scenes 4(9), 779-797, 2004.

Robilotto, R. and Zaidi, Q. Perceived transparency of neutral density filters across dissimilar backgrounds. *Journal of Vision*, 4(3), 183-195, 2004.

Li, A. & Zaidi, Q. (2004) Perception of 3D shape from homogeneous and non-homogeneous surface textures, *Proceedings of Electronic Imaging Science and Technology: Human Vision and Electronic Imaging IX*, SPIE vol. 5292, 307-321.

Li, A. and Zaidi, Q. Observer strategies in the perception of 3-D shape from isotropic textures: developable surfaces. *Vision Research*, 43, 2741-2758, 2003.

Shapiro, A., Beere, J. and Zaidi, Q. Time course of adaptation stages in the S cone color system. *Vision Research*, 43, 1135-1147, 2003.

Clifford, C.W.G., Spehar, B., Solomon, S.G., Martin, P. R. and Zaidi, Q. Interactions between color and luminance in the perception of orientation. *Journal of Vision*, 3, 106-115, 2003.

Zaidi, Q. and Griffiths, A.F. Generic assumptions shared by visual perception and imagery. *Brain and Behavioral Sciences* 25, 215-216, 2002.

Tsujimura, S. and Zaidi, Q. Similarities between visual processing of relative and absolute motion. *Vision Research* 42, 3005-3017, 2002.

Robilotto, R., Khang, B. and Zaidi, Q. Sensory and physical determinants of perceived achromatic transparency. *Journal of Vision*, 2(5), 388-403, 2002.

Khang, B. and Zaidi, Q. Accuracy of color scission for spectral transparencies. *Journal of Vision*, 2, 251-266, 2002.

Zaidi, Q. and Li, A. Limitations on shape information provided by texture cues. *Vision Research*, 42, 815-835, 2002.

Khang, B. and Zaidi, Q. Cues and strategies for color constancy: perceptual scission, image junctions, transformational color matching. *Vision Research*, 42, 211-226, 2002.

Lee, B., Joost, U. and Zaidi, Q. Commentary on "Lichtenberg, G.C. (1793) Letter to Johann Wolfgang von Goethe on "Farbige Schatten." *Color Research and Application*, 27, 300-303, 2002.

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- Li, A. and Zaidi, Q. Information limitations on the perception of shape from texture. *Vision Research*, 41, 2927-2942, 2001.
- Zaidi, Q. Is there a perceptual color space? Review of "Geometric representations of perceptual phenomena", R.D. Luce, M. D'Zmura, D. Hoffman, G.J. Iverson and A.K. Romney (eds.). *Color Research and Application*, 26, 325-328, 2001.
- Zaidi, Q. Color constancy in a rough world. *Color Research and Application*, 26, S192-S200, 2001.
- Shapiro, A., Beere, J. and Zaidi, Q. Stages of temporal adaptation in the RG color system. *Color Research and Application*, 26, S43-S47, 2001.
- Zaidi, Q. and DeBonet, J.S. Motion energy versus position tracking: spatial, temporal, and chromatic parameters. *Vision Research*, 40, 3613-3635, 2000.
- Li, A. and Zaidi, Q. The perception of 3D shape from texture is based on patterns of oriented energy. *Vision Research*, 40, 217-242, 2000.
- Griffiths, A.F. and Zaidi, Q. Perceptual assumptions and projective distortions in a three-dimensional shape illusion. *Perception*, 29, 171-200, 2000.
- Zaidi, Q. Color and brightness induction: From Mach bands to 3-D configurations. In *Color Vision: From Genes to Perception*, Gegenfurtner, K. and Sharpe, L. (eds.), Cambridge University Press, New York, 1999.
- Zaidi, Q. Identification of illuminant and object colors: heuristics based algorithms. *J. Opt. Soc. Am.*, A15, 1767-1776, 1998.
- Griffiths, A.F. and Zaidi, Q. Rigid objects that appear to bend. *Perception*, 27, 799-802, 1998.
- Zaidi, Q., Spehar, B. and DeBonet, J.S. Adaptation to textured chromatic fields. *J. Opt. Soc. Am.*, A15, 23-32, 1998.
- Zaidi, Q. Decorrelation of L and M cone signals. *J. Opt. Soc. Am.*, A14, 3430-3431, 1997.
- Spehar, B. and Zaidi, Q. Surround effects on the shape of the temporal contrast sensitivity function. *J. Opt. Soc. Am.*, A14, 2517-2525, 1997.
- Zaidi, Q., Spehar, B. and Shy, M. Induced effects of backgrounds and foregrounds in three-dimensional configurations: the role of T junctions. *Perception*, 26, 395-408, 1997.
- Spehar, B. and Zaidi, Q. New configurational effects on perceived contrast and brightness: Second-order White's effects. *Perception*, 26, 409-418, 1997.
- Zaidi, Q., Spehar, B. and DeBonet, J.S. Color constancy in variegated scenes: the role of low-level mechanisms in discounting illumination changes. *J. Opt. Soc. Am.*, A14, 2608-2621, 1997.
- DeBonet, J.S. and Zaidi, Q. Comparison between spatial interactions in perceived contrast and perceived brightness. *Vision Research*, 37, 1141-1155, 1997.
- Zaidi, Q., DeBonet, J.S. and Spehar, B. Perceived grey-levels in complex configurations. *Recent Progress in Color Science*, Eschbach, R. and Braun, K. (eds.), Imaging Science & Technology, 97-100, (1997).
- Greenstein, V., Zaidi, Q., Hood, D., DeBonet, J.S., Spehar, B., Cideciyan, A. and Jacobson, S. Enhanced S Cone Syndrome: receptor and post-receptor analyses. *Vision Research*, 36, 3711-3722, 1996. Reprinted in *OSA Trends in Optics and Photonics Series Vol. 11, Noninvasive*

Assessment of the Visual System, Yager, D. (ed.), (Optical Society of America, Washington, DC 1997).

Spehar, B., DeBonet, J.S. and Zaidi, Q. Brightness induction from uniform and complex surrounds: a general model. *Vision Research*, 36, 1893-1906, 1996.

Greenstein, V., Halevy, D, Zaidi, Q. and Ritch, R. Chromatic and achromatic system deficits in open-angle glaucoma. *Vision Research*, 36, 621-629, 1996. Reprinted in *OSA Trends in Optics and Photonics Series Vol. 11, Noninvasive Assessment of the Visual System*, Yager, D. (ed.), (Optical Society of America, Washington, DC 1997).

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Zaidi, Q. Commentary on "Schrodinger, E. (1925) Uber der Verhaltnis der Vierfarben zur Dreifarbentheorie" *Color Research and Application*, 19, 37-40, 1994.

Gegenfurtner, K., Kiper, D., Beusmans, J., Carandini, M., Zaidi, Q. and Movshon, J. A. Chromatic properties of neurons in macaque MT. *Visual Neuroscience*, 11, 455-466, 1994.

Zaidi, Q. and Shapiro, A. Adaptive orthogonalization of opponent-color signals. *Biological Cybernetics*, 69, 415-428, 1993.

Greenstein, V., Shapiro, A., Hood, D and Zaidi, Q. Chromatic and luminance sensitivity in diabetes and glaucoma. *J. Opt. Soc. Am.*, A10, 1785-1791, 1993.

Sachtler, W. and Zaidi, Q. The effect of spatial configuration on motion aftereffects. *J. Opt. Soc. Am.*, A10, 1433-1449, 1993.

Zaidi, Q. and Zipser, N. Induced contrast from radial patterns. *Vision Research*, 33, 1281-1286, 1993.

Zaidi, Q. and Halevy, D. Visual mechanisms that signal the direction of color changes. *Vision Research*, 33, 1037-1051, 1993.

Zaidi, Q. Commentary on "Maxwell, J. C. (1860) On the theory of compound colours and the relations of the colours of the spectrum" *Color Research and Application*, 18, 270-272, 1993.

Shapiro, A. and Zaidi, Q. The effect of prolonged temporal modulation on the differential response of color mechanisms. *Vision Research*, 32, 2065-2076, 1992.

Zaidi, Q., Yoshimi, B., Flanigan, N. and Canova, A. Lateral interactions within color mechanisms in simultaneous induced contrast. *Vision Research*, 32, 1695-1707, 1992.

Greenstein, V., Shapiro, A., Zaidi, Q. and Hood, D. Psychophysical evidence for post-receptoral sensitivity loss in diabetics. *Invest. Ophthal. and Vis. Sc.*, 33, 2781-2790, 1992.

Sachtler, W. and Zaidi, Q. Chromatic and luminance signals in visual memory. *J. Opt. Soc. Am.*, A9, 877-894, 1992.

Zaidi, Q., Shapiro, A. and Hood, D. The effect of adaptation on the differential sensitivity of the S-cone color system. *Vision Research*, 32, 1297-1318, 1992.

Zaidi, Q. Parallel and serial connections between human color mechanisms. In *Applications of Parallel Processing in Vision*, J. Brannan (Ed.), Elsevier, Amsterdam, 227-259, 1992.

Zaidi, Q. and Sachtler, W. Motion adaptation from surrounding stimuli. *Perception*, 20, 703-714, 1991.

- Zaidi, Q., Yoshimi, B. and Flanigan, J. The influence of shape and perimeter-length on induced color contrast. *J. Opt. Soc. Am.*, A8, 1810-1817, 1991.
- Zaidi, Q. and Halevy, D. Chromatic mechanisms beyond linear opponency. In *From Pigments to Perception: Advances in Understanding Visual Processes*, A. Valberg and B. Lee (Eds.), Plenum Press, London, 337-348, 1991.
- Zaidi, Q. Apparent brightness in complex displays: A reply to Moulden and Kingdom. *Vision Research*, 30, 1253-1255, 1990.
- Zaidi, Q. Local and distal factors in visual grating induction. *Vision Research*, 29, 691-697, 1989.
- Zaidi, Q., Pokorny, J. and Smith, V. Sources of individual differences in anomaloscope equations for tritan defects. *Clinical Vision Sciences*, 4, 89-94, 1989.
- Zaidi, Q. and Pokorny, J. Appearance of pulsed infrared light: second harmonic generation in the eye. *Applied Optics*, 27, 1064-1068, 1988.
- Zaidi, Q. Adaptation and color matching. *Vision Research*, 26, 1925-1938, 1986.
- Krauskopf, J., Zaidi, Q. and Mandler, M.B. Mechanisms of simultaneous color induction. *J. Opt. Soc. Am.*, A3, 1752-1757, 1986.
- Krauskopf, J. and Zaidi, Q. Induced desensitization. *Vision Research*, 26, 759-762, 1986.
- Smith, V., Pokorny, J. and Zaidi, Q. How do sets of color matching functions differ? In *Colour Vision: Physiology and Psychophysics*, J. Mollon and L.T. Sharpe (Eds.), Academic Press Ltd., London, 1983.
- Pokorny, J., Smith, V., Burns S., Elsner, A. and Zaidi, Q. Modeling Blue-Yellow Opponency, *Proceedings of the Fourth International Congress, AIC*. M. Richter (Ed.), Berlin, 1981.

#### **PUBLISHED CONFERENCE ABSTRACTS**

- Bachy, R. and Zaidi, Q. Factors governing the speed of adaptation in central versus peripheral vision. *International Colour Vision Society, Annual Meeting, July 2013*.
- Wool, L, Kombar, S, Alonso, J-M. and Zaidi, Q. Saliency of unique and other colors. *International Colour Vision Society, Annual Meeting, July 2013*.
- Kombar SK, Jin J, Wang Y, Lashgari R, Kremkow J, Alonso JM, Zaidi Q. Perceptual consequences of temporal differences in ON and OFF channels. *Vision Sciences Society, Annual Meeting 2013*.
- Jain A, Doerschner K, Zaidi Q. Identification of Nonrigid 3D Shapes from Motion Cues in Fovea and Periphery. *Vision Sciences Society, Annual Meeting 2013*.
- Giesel M, Zaidi Q. Constituents of material property perception. *Vision Sciences Society, Annual Meeting 2013*.
- Ennis R, Zaidi Q. Perceptual color space is affine. *Vision Sciences Society, Annual Meeting 2012*.
- Radner S, Ennis R, Lee B, Dul M, Zaidi Q. Adaptation abnormalities in Primary Open-Angle Glaucoma. *Association for Research in Vision and Ophthalmology, Annual Meeting 2013*.
- Zhao L, Dul M, Alonso J, Kombar S, Zaidi Q. Darks are detected faster and more accurately than lights in normal subjects and patients with moderate glaucoma. *Association for Research in Vision and Ophthalmology, Annual Meeting 2013*.

Wool, L, Komban, S and Zaidi, Q. Saliency of unique and other colors. . Society for Neuroscience, Annual Meeting 2012.

Ennis, R and Zaidi, Q. Geometrical investigations of perceptual color space. Society for Neuroscience, Annual Meeting 2012.

Jansen, M, Li, X, Lashgari ,R, Kremkow, J, Bereshpolova, Y, Swadlow, H, Zaidi, Q, Alonso, J.-M. Chromatic spatial frequency tuning of local field potentials in awake area V1. Society for Neuroscience, Annual Meeting 2012.

Komban S. J, Jin, J, Wang, Y, Lashgari, R, Kremkow J, Zaidi,, Q, Alonso J.-M. Temporal dynamics of responses to dark and light stimuli in visual cortex. Society for Neuroscience, Annual Meeting 2012.

Kremkow J, Komban S. J, Jin, J, Wang, Y, Lashgari, R, Zaidi,, Q, Alonso J.-M. Different spatial frequency tuning for dark and light stimuli in visual cortex. Society for Neuroscience, Annual Meeting 2012.

Zaidi, Q and Giesel M. Inferences of material properties based on frequency-band analyses. European Conference on Visual Perception, Alghero, Sardinia, Sept 2012.

Zaidi, Q and Cohen, E. Modeling perceptual variations by neural decoding. Computational and Mathematical Models in Vision, Annual Meeting 2012.

Jain, A and Zaidi, Q. A Bayesian Model for Disparity Driven Object Motion. Computational and Mathematical Models in Vision, Annual Meeting 2012.

Jain, A and Zaidi, Q. Efficiency of object motion extraction using disparity signals. Vision Sciences Society, Annual Meeting 2012.

Giesel M and Zaidi Q. Adaptation reveals frequency band based inferences of material properties. Vision Sciences Society, Annual Meeting 2012.

Papathomas T, Ash J, Hughes J, Keane B, Zaidi Q. Familiarity dominates shape-from-motion signals in the concave-to-convex 3D illusion. Vision Sciences Society, Annual Meeting 2012.

Zaidi, Q., Ennis, R., Cao, D., Lee, B. Early neural locus for color after-images. European Conference on Visual Perception, Toulouse, France, Sept 2011.

Jain, A and Zaidi, Q. Perception of 3-D waves. European Conference on Visual Perception, Toulouse, France, Sept 2011.

Zaidi, Q., Ennis, R., Cao, D., Lee, B. Early neural locus for color after-images. International Color Vision Society, Annual Meeting, Kongsberg, Norway, July 2011.

Zaidi, Q. and Jain, A. Classifying Dynamic 3-D Shape Deformations from Motion Cues. Vision Sciences Society, Annual Meeting 2011.

Giesel M and Zaidi Q. Visual perception of material affordances. Vision Sciences Society, Annual Meeting 2011.

Ennis R , Lee, B. and Zaidi Q. Physiological signature of time-varying color after-images. Vision Sciences Society, Annual Meeting 2011.

Jansen M and Zaidi Q. Detecting animals in natural surroundings: The role of color distributions. Vision Sciences Society, Annual Meeting 2011.



Papathomas T, Ash J, Hughes J, Keane B, Zaidi Q. Face priors overcome shape-from-motion signals in the rotating hollow face illusion. Vision Sciences Society, Annual Meeting 2011.

Zaidi, Q and Jain, A. Perception of non-rigid 3-D shapes from motion cues. European Conference on Visual Perception, Lausanne, Switzerland, 2010.

Jain, A and Zaidi, Q. Veridical perception of non-rigid 3-D shapes from motion cues. Vision Sciences Society, Annual Meeting 2010.

Meng, X. and Zaidi, Q. Haptic learning disambiguates but does not override texture cues to 3-D shape. Vision Sciences Society, Annual Meeting 2010.

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Zaidi, Q., and Yoonessi, A. Cortical color processing: costs and benefits of expanding neural dimensionality. Society for Neuroscience, Annual Meeting 2009.

Ennis, R., Lee, B. and Zaidi, Q. The effects of eye movements on contrast detection. Society for Neuroscience, Annual Meeting 2009.

Komban, S.J., Alonso, J.M. and Zaidi, Q. ON and OFF visual channels: Differences in spatial resolution and contrast sensitivity. Society for Neuroscience, Annual Meeting 2009.

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Li, A., and Zaidi, Q. Unmasking of orientation flows in 3-D shape perception. Vision Sciences Society, Annual Meeting 2008.

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Lee, R., Mollon, J., Zaidi, Q., Smithson, H. Adaptation of central colour channels. European Conference on Visual Perception, 2007.

de Almeida, VMN, Fiadeiro, PT, Teixeira, M, Nascimento, SMC and Zaidi, Q. Color constancy of real 3-D objects and the roles of spatial and temporal mechanisms. International Color Vision Society, Annual Meeting, Belem, Brazil, July 2007.

Lee, R., Mollon, J., Zaidi, Q., Smithson, H. The special status of the cardinal axes. International Color Vision Society, Annual Meeting, Belem, Brazil, July 2007.

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Li, A., and Zaidi, Q. 3-D curvature aftereffects invariant to texture pattern. Vision Sciences Society, Annual Meeting 2007.

Meng, X. and Zaidi, Q. Feature correspondence versus motion energy in 3-D shape perception. Vision Sciences Society, Annual Meeting 2007.

Cohen, E. and Zaidi, Q. Saliency of mirror symmetry in natural patterns. Vision Sciences Society, Annual Meeting 2007.

Zaidi, Q., Robilotto, R. and Khang, B-G. Psychophysics based models for properties of translucent objects. CIE Expert Symposium on Visual Appearance, Paris, 2006.

Zaidi, Q. and Meng, X. Activation of competing perceptual assumptions for 3-D shape. European Conference on Visual Perception, 2006, p182.

Meng, X. and Zaidi, Q. Perceived velocity gradients and the rigidity of 3-D shapes. Vision Sciences Society, Annual Meeting 2006.

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Sun, H., Smithson, H., Lee, B.B. and Zaidi, Q. Do the MC and PC pathways deliberately avoid S-cone input? International Color Vision Society 2005, Annual Meeting, Lyon, France.

Zaidi, Q. and Robilotto, R. Reflectance identification of patterned 3-D real objects. AIC - Congress of the International Colour Association 2005, Granada, Spain.

Robilotto, R. and Zaidi, Q. Perceptual strategies for the identification of patterned 3-D real objects across illuminants. Association for Research in Vision and Ophthalmology, Annual Meeting 2004.

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Griffiths, A. F. and Zaidi, Q. Perceptual asymmetry in solid shape perception. Vision Sciences Society, Annual Meeting 2002, p110.

Khang, B. and Zaidi, Q. Illuminant color perception of spectrally filtered spotlights. Vision Sciences Society, Annual Meeting 2002, p56.

Smithson, H. and Zaidi, Q. Partitions of object colour space under illuminant and background changes. Vision Sciences Society, Annual Meeting 2002, p54.

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- Li, A. and Zaidi, Q. Phase spectra are irrelevant in 3D shape from natural textures. Vision Sciences Society, Annual Meeting 2001, p44.
- Tsujimura, S. and Zaidi, Q. Higher sensitivity for relative motion is due to position tracking. Vision Sciences Society, Annual Meeting 2001, p28.
- Griffiths, A. F. and Zaidi, Q. Looking through Ames' window. Vision Sciences Society, Annual Meeting 2001, p45.
- Khang, B. and Zaidi, Q. Shifts in inferred colors of transparent layers. Vision Sciences Society, Annual Meeting 2001, p119.
- Robilotto, R., Khang, B. and Zaidi, Q. Perceived transparency: trade-offs between reflectance and transmittance. Vision Sciences Society, Annual Meeting 2001, p119.
- Spehar, B. and Zaidi, Q. Chromatic and brightness crispening. European Conference on Visual Perception, 2000. (Perception, 29 (Sup), 15, 2000).
- Zaidi, Q. and Li, A. Neural model of shape from texture: developable surfaces. Association for Research in Vision and Ophthalmology, Annual Meeting 2000. (Inv. Ophth. & Vis. Sc., 41, S219, 2000).
- Li, A. and Zaidi, Q. Roles of frequency and orientation modulation in shape from texture. Association for Research in Vision and Ophthalmology, Annual Meeting 2000. (Inv. Ophth. & Vis. Sc., 41, S317, 2000).
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- Khang, B. and Zaidi, Q. Tests of color scission by identification of transparent overlays. Association for Research in Vision and Ophthalmology, Annual Meeting 2000. (Inv. Ophth. & Vis. Sc., 41, S239, 2000).
- Robilotto, R. and Zaidi, Q. Performance based lightness constancy: crumpled 3D objects. Association for Research in Vision and Ophthalmology, Annual Meeting 2000. (Inv. Ophth. & Vis. Sc., 41, S227, 2000).
- Shapiro, A., Beere, J. and Zaidi, Q. Time course of higher-order adaptation in the S-(L+M) color system. Association for Research in Vision and Ophthalmology, Annual Meeting 2000. (Inv. Ophth. & Vis. Sc., 41, S809, 2000).
- Spehar, B. and Zaidi, Q. Contrast sensitivity in uniform and complex surrounds. Symposium on long range interactions. Optical Society of America, Annual Meeting 1999 (Conference Program, 62).
- Li, A. and Zaidi, Q. Which natural textures convey shape? European Conference on Visual Perception, 1999 (Perception, 28 (Sup), 14, 1999).
- Shapiro, A., Beere, J. and Zaidi, Q. Temporal properties of adaptation stages in the S-(L+M) color system. International Color Vision Society, XVth Symposium, July 1999. (ICVS, XVth Symposium Abstracts, P15, 1999).

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Zaidi, Q., DeBonet, J.S. and Spehar, B. Perceived grey-levels in complex configurations. Inter Society Color Council, Annual Meeting 1995. (ISCC 64th Annual Meeting, 39-42, 1995).

Zaidi, Q. and DeBonet, J.S. Contribution of chromatic signals to motion-energy and feature-tracking. Optical Society of America, Annual Meeting 1994, (Optics and Photonic News, 5 (suppl), 99, 1994).

Sachtler, W.L., Han, J. and Zaidi, Q. Adaptation to motion boundaries. Optical Society of America, Annual Meeting 1994, (Optics and Photonic News, 5 (suppl), 99, 1994).

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Zaidi, Q. Contrast sensitivity for input distributions. Optical Society of America, Annual Meeting 1993. (Opt. Soc. Am. Tech. Digest Series, 16, 268, 1993).

Sachtler, W. and Zaidi, Q. Visual processing of simple and multiple motion. Optical Society of America, Annual Meeting 1993. ( Opt. Soc. Am. Tech. Digest Series, 16, 273, 1993).

Zaidi, Q. Adaptation processes governed by the distribution of inputs. European Conference on Visual Perception, 1993. ( Perception, 22, (Sup), 62, 1993).

Zaidi, Q. and Shapiro, A. Functional models of adaptation to color modulation. Association for Research in Vision and Ophthalmology, Annual Meeting 1993. ( Inv. Ophth. & Vis. Sc., 34, 744, 1993).

Zipser, N. and Zaidi, Q. Temporal properties of brightness induction. Association for Research in Vision and Ophthalmology, Annual Meeting 1993. ( Inv. Ophth. & Vis. Sc., 34, 765, 1993).

Greenstein, V., Halevy, D., Ritch, R. and Zaidi, Q. Opponent and achromatic system deficits in pigmentary vs. juvenile open-angle glaucoma. Association for Research in Vision and Ophthalmology, Annual Meeting 1993. (Inv. Ophth. & Vis. Sc., 34, 1267, 1993).

Sachtler, W. and Zaidi, Q. Measurements and models of the motion after-effect. Optical Society of America, Annual Meeting 1992. ( Opt. Soc. Am. Tech. Digest Series, 23, 216, 1992).

Shapiro, A. and Zaidi, Q. Prolonged temporal modulation and the interaction between color mechanisms. Optical Society of America, Annual Meeting 1992. ( Opt. Soc. Am. Tech. Digest Series, 23, 51, 1992).

Zaidi, Q and Shapiro, A. Adaptive decorrelation between opponent-color mechanisms. European Conference on Visual Perception, 1992. ( Perception, 21 (Sup), 62, 1992).

Greenstein, V., Ritch, R., Shapiro, A., Zaidi, Q. and Hood, D. The effects of glaucoma on cone pathways. Association for Research in Vision and Ophthalmology, Annual Meeting 1992. ( Inv. Ophth. & Vis. Sc., 33, 1383, 1992)

Zaidi, Q. and Shapiro, A. Combination of signals from opponent color mechanisms. Advances in Color Vision, Optical Society of America, Topical Meeting 1992. ( Advances in Color Vision Technical Digest, Vol 4, 201-203, 1992)

Movshon, J. A., Kiper, D., Beusmans, J., Gegenfurtner, K., Zaidi, Q., Carandini, M. Chromatic properties of neurons in macaque MT. Society for Neuroscience, Annual Meeting 1991. ( Soc. Neurosci. Abstr., Vol 17, Part 1, 524, 1991)

Zaidi, Q. and Halevy, D. Mechanisms that signal color changes-II. Association for Research in Vision and Ophthalmology, Annual Meeting 1991. ( Inv. Ophth. & Vis. Sc., 32, 1214, 1991)

Sachtler, W. L. and Zaidi, Q. Efficiency of chromatic and luminance signals in temporal discrimination. Association for Research in Vision and Ophthalmology, Annual Meeting 1991. (Inv. Ophth. & Vis. Sc., 32, 1213, 1991)

Shapiro, A., and Zaidi, Q. The effects of prolonged temporal modulation on the response of color mechanisms. Association for Research in Vision and Ophthalmology, Annual Meeting 1991. ( Inv. Ophth. & Vis. Sc., 32, 842, 1991)

Greenstein, V., Shapiro, A., Carr, R., Harooni, M., Hood, D., Ritch, R., and Zaidi, Q. Chromatic and achromatic threshold changes associated with ocular disorders. Association for Research in Vision and Ophthalmology, Annual Meeting 1991. ( Inv. Ophth. & Vis. Sc., 32, 1231, 1991)

Zaidi, Q., Yoshimi, B. and Flanigan, N. Tests of spatial additivity for induced color contrast. Optical Society of America, Annual Meeting, 1990. ( Opt. Soc. Am. Tech. Digest Series, 15, 206, 1990).

Zaidi, Q. and Halevy, D. Mechanisms that signal color changes. Association for Research in Vision and Ophthalmology, Annual Meeting 1990. ( Inv. Ophth. & Vis. Sc., 31, 110, 1990)

Shapiro, A., Zaidi, Q., and Hood, D. Adaptation in the red-green (L-M) color system. Association for Research in Vision and Ophthalmology, Annual Meeting 1990. ( Inv. Ophth. & Vis. Sc., 31, 262, 1990)

Yoshimi, B., and Zaidi, Q. The effect of shape, perimeter and area on induced color contrast. Association for Research in Vision and Ophthalmology, Annual Meeting 1990. ( Inv. Ophth. & Vis. Sc., 31, 264, 1990)

Greenstein, V., Thomas, S., Shapiro, A., Zaidi, Q., and Hood, D. A comparison of techniques for measuring S cone sensitivity in diabetics. Association for Research in Vision and Ophthalmology, Annual Meeting 1990. (Inv. Ophth. & Vis. Sc., 31, 423, 1990)

Sachtler, W. L. and Zaidi, Q. Motion detection and the role of motion boundaries. Association for Research in Vision and Ophthalmology, Annual Meeting 1990. ( Inv. Ophth. & Vis. Sc., 31, 521, 1990)

Zaidi, Q., Hood, D. and Shapiro, A. The time course of sensitivity change in S-cone color mechanisms. Association for Research in Vision and Ophthalmology, Annual Meeting, 1989. (Inv. Ophth. & Vis. Sc., 30, 221, 1989).

Zaidi, Q. and Hood, D. Sensitivity changes in color mechanisms. Optical Society of America, Annual Meeting, 1988. ( Opt. Soc. Am. Technical Digest Series Vol. 11, 67, 1988).

Zaidi, Q. and Skorupski, A. Spatial weighting function for induced color contrast. Optical Society of America, Annual Meeting, 1988. ( Opt. Soc. Am. Technical Digest Series Vol. 11, 104, 1988).

Zaidi, Q. and Hood, D. Sites of instantaneous nonlinearities in the visual system. Association for Research in Vision and Ophthalmology, Annual Meeting, 1988. ( Inv. Ophth. & Vis. Sc., 29, 163, 1988).

Zaidi, Q. Nonlinear color mechanisms: a new model and a new method. Optical Society of America, Annual Meeting, 1987. ( J. Opt. Soc. Am. A 4(13), 107, 1987).

Zaidi, Q. Does shape affect color induction? Optical Society of America, Annual Meeting, 1987. (J. Opt. Soc. Am. A 4(13), 52, 1987).

Zaidi, Q. & Krauskopf, J. Spatial interactions in color induction. Association for Research in Vision and Ophthalmology, Annual Meeting, 1987. ( Inv. Ophth. & Vis. Sc., 28, 214, 1987).

Zaidi, Q. and Krauskopf, J. Color induction in cardinal and intermediate directions. Association for Research in Vision and Ophthalmology, Annual Meeting, 1986. ( Inv. Ophth. & Vis. Sc., 27, 73, 1986).

Krauskopf, J. and Zaidi, Q. Spatial factors in color induction. Association for Research in Vision and Ophthalmology, Annual Meeting, 1986. ( Inv. Ophth. & Vis. Sc., 27, 291, 1986).

Krauskopf, J. and Zaidi, Q. New measurements of color induction. European Conference on Visual Perception, 1986. (Perception, 15, A28, 1986).



Zaidi, Q. Color Contrast. Eleventh Annual Interdisciplinary Conference, Whistler, BC, 1986.  
Krauskopf, J. and Zaidi, Q. Spatial factors in desensitization along cardinal directions of color space. Association for Research in Vision and Ophthalmology, Annual Meeting, 1985. (Inv. Ophth. & Vis. Sc., 26, 206, 1985).  
Zaidi, Q. and Pokorny, J. Failures of metamerism at short-wavelengths, Optical Society of America, Annual Meeting, 1983. (J. Opt. Soc. Am., 73, 1902, 1983).  
Zaidi, Q., Pokorny, J. and Smith, V. Sources of variation in blue-green equations. Optical Society of America, Annual Meeting, 1982. (J. Opt. Soc. Am., 72, 1727, 1982).

## INVITED LECTURES

Geometry of perceptual color space. Mini-symposium on Perceptual Spaces: Mathematical structures to neural mechanisms. Society for Neuroscience Annual Meeting, San Diego, 2013.  
Perception and Neurons. School of Optometry of Montréal, Université de Montréal, November 2013.

Perception and Neurons. Department of Psychology, Rutgers University, NJ, October 2013.

Fast and slow processes in color neurophysiology. Symposium on Color Neurophysiology, International Colour Vision Society, Annual Meeting, Winchester, UK, July 2013.

Saliency of symmetry in natural patterns. Workshop on Symmetry. Computer Vision and Pattern Recognition, Annual Meeting, Portland OR, June 2013.

Phenomenology and Neurons. Symposium on "Does appearance matter?" Vision Sciences Society, Annual Meeting, Naples FL, May 2013.

Perception of non-rigid 3-D shapes and motions. Bilkent University, Ankara, Turkey, February 2012.

Lights, Materials, Actions. Brown University, Providence, RI, October 2011.

What do deforming shapes reveal about shape-from-motion. Joint ECVP-APGV Symposium on Deforming Shapes – Deformable Templates, Toulouse France, August, 2011.

Color in a material world. Conference on More or Less: Varieties of Cortical Colour Vision, Vancouver, BC, August 2011.

Visual Perception of Material Affordances: Frequency band analyses. University College London, London, UK, June 2011.

Visual Perception of Material Affordances. Workshop on the Perception of Material Properties, Castle Rauschholzhausen, Germany, June 2011.

Cortical decoding of color. 2nd International Symposium on Vision and Visual Dysfunction, Belém, Brazil, September 2010.

Visual Perception of Material Changes. Symposium on "The perception of colored patterns. textures and materials", Asia-Pacific Conference on Vision, July 2010.

Cortical decoding of shapes and colors: costs and benefits of expanding neural dimensionality. W. S. Stiles Lecture, London, England, March 2010.

Neural Processes for 3-D Perception, INSERM Stem Cell and Brain Research Institute, Lyon, France, March 2009.

Color strategies for object identification: an operational approach to color constancy. Computational Color Imaging Workshop, Saint-Etienne, France, March 2009.

Heuristic algorithms for 3-D shape perception. First International Workshop on Shape Perception in Human and Computer Vision, European Conference on Computer Vision, Marseille, France, October 2008.

Are observers "Opportunistic" Bayesians when using color for object identification? International Congress of Psychology, Berlin, Germany, July 2008.

Neural processes that contribute to 3-D shape perception. Bernstein Center for Computational Neuroscience Berlin, Germany, July 2008.

Physical, computational and perceptual factors in color-based object identification, Chester F. Carlson Center for Imaging Science, Rochester Institute of Technology, Rochester, NY, April 2007.

Neural filters for 3-D perception. Department of Cognitive Sciences, University of California, Irvine, CA, February 2007.

Color based object identification: Alternatives to inverse optics. Colour Group of Great Britain, London, January 2007.

Perceptual assumptions and neural filters. Department of Psychology, University College London, London, January 2007.

Varieties of perceptual assumptions. Laboratoire Psychologie de la Perception, CNRS - Université Paris 5, October 2006.

Visual intelligence. Dept of Neuropsychology, Queens College, CUNY, Queens, NY, April 2006.

Cortical computations involving color, orientation and 3-D shape. International Color Vision Society, Annual Meeting, Lyon, France, July 2005.

Expanding the domain of color constancy. The Rutgers University Series on Human and Computer Vision, New Brunswick, NJ. November 2004.

Roles for local adaptation and reference levels in color constancy. European Conference on Visual Perception, Budapest, Hungary, August 2004.

Environmental invariances and neural strategies for 3-D shape from texture. Vision Research Labs, University of Chicago, Chicago, IL, June 2004.

Perceptual strategies for material identification. College of Optometry, University of Houston, Houston, TX, April 2004.

Neural basis of shape from texture. College of Optometry, University of Houston, Houston, TX, April 2004.

Perceptual strategies for material identification. Workshop on Perception of Object Color and Material Properties in Three-Dimensional Scenes, New York University, New York, NY, October 2003.

Perceptual inferences of 3-D shapes from texture information. Computer Graphics Seminar, University of Minnesota, Minneapolis, MN, September 2002.

Cues and strategies for color constancy. OSA/UCI Color Workshop, Irvine, CA. October 2001.

Towards a neural basis of shape from texture. Department of Neurobiology, Duke University, Durham, NC, June 2001.

How surface textures convey 3-D shape. Cognition and Perception Area Seminar, Department of Psychology, New York University, New York, NY, April 2001.

How surface textures convey 3-D shape. Department of Psychology, University of Melbourne, Melbourne, Australia, March 2001.

Cues and strategies for color constancy. Optometry and Vision Sciences, University of Melbourne, Melbourne, Australia, March 2001.

How surface textures convey 3-D shape. Macquarie Center for Cognitive Science, Macquarie University, Sydney, Australia, February 2001.

Cues and strategies for color constancy. Vision Discussion Group, University of Sydney, Sydney, Australia, February 2001.

Towards a neural model of shape from texture. Research School of Biological Sciences, Institute of Advanced Studies, Australian National University, Canberra, Australia, February 2001.

Functional benefits of color adaptation. Australian Neuroscience Society, Annual Meeting, Brisbane, Australia, January 2001.

Towards a neural model of shape from texture. Neural Net/Vision Seminar, Brown University, Providence, RI. October 2000.

Chromatic motion-energy mechanisms. Optical Society of America, Annual Meeting, Providence, RI. October 2000.

Cortical color representations. Optical Society of America, Annual Meeting, Providence, RI. October 2000.

Developments in color appearance: physical, neural, computational, and perceptual. Keynote Lecture, Taipei Conference on Color Science, Taipei, Taiwan, June 2000.

Performance based color constancy. Department of Psychology, University of California at Santa Barbara, Santa Barbara, CA. June 2000.

Neural basis of shape from texture. Smith-Kettlewell Institute for Vision Science. San Francisco, CA. May 2000.

Neural basis of shape from texture. University of California at Berkeley, Berkeley, CA. May 2000.

Neural basis of shape from texture. The Rutgers University Series on Human and Computer Vision, New Brunswick, NJ. March 2000.

How to do perception with neurons. Department of Psychology, Bucknell University, PA. March 2000.

Junctions versus Gestalts. Optical Society of America, Annual Meeting, Santa Clara, CA. October 1999.

Measurements of object and illuminant identification. European Conference on Visual Perception, Trieste, Italy. August 1999.

Rethinking the perception of three-dimensional shape from texture cues. Max Planck Institute for Biological Cybernetics, Tübingen, Germany. August 1999.

Performance based color constancy. International Color Vision Society, XVth Symposium, Göttingen, Germany. July 1999.

Color representation by cortical neurons. Department of Neurology, Cornell Medical School, New York, NY. July 1999.

Rethinking the perception of three-dimensional shape from texture cues. Proteins to People: The First SUNY Vision Symposium, New York, NY. March 1999.

Perception without homunculi. NEC Institute, Princeton, NJ. January 1999.

A fresh look at color constancy: heuristics based algorithms. Optical Society of America, Annual Meeting, Baltimore MD. October 1998.

Is there a perceptual color space? Inter-Society Color Council/Optical Society of America Joint Symposium, Baltimore MD. October 1998.

Color and brightness induction: From Mach bands to 3-D configurations. Department of Psychology, North Dakota State University, Fargo, ND. September 1998.

Color constancy in a rough world. Kenneth Craik Seminar, Department of Physiology, Cambridge University, Cambridge, UK. July 1998.

Shape inconstancy in perspective. Institute of Ophthalmology, University of London, London, UK. July 1998.

Color and brightness induction: From Mach bands to 3-D configurations. Joint Aston University and Keele University Seminar, Keele, UK. July 1998.

A different look at color constancy: heuristics based algorithms. Computational Neurobiology Seminar, University of Chicago, Chicago, IL. May 1998.

Perceptual assumptions and projective distortions in a three-dimensional shape illusion. Department of Psychology, Harvard University, Cambridge, MA. February 1998.

A fresh look at color constancy. Brain and Behavioral Sciences, Massachusetts Institute of Technology, Cambridge, MA. February 1998.

Heuristics and priors in color and shape identification. Department of Computer Science, Columbia University, New York, NY. November 1997.

Color constancy in variegated scenes. Optical Society of America, Annual Meeting, Rochester, NY. October 1996.

Color constancy in variegated scenes. Wilmer Institute Vision Research Seminar, Johns Hopkins University School of Medicine, Baltimore, MD. October 1996.

Color perception in complex scenes: induction, adaptation and constancy. Workshop on Color Vision, Max Planck Institute for Biological Cybernetics, Tuebingen, Germany. September 1996.

Affine, vector, metric and functional color spaces. Optical Society of America, Annual Meeting, Portland, OR. September 1995.

Visual processing of chromatic and luminance transients. Optical Society of America, Annual Meeting, Portland, OR. September 1995.

Fundamental issues in motion perception. The Rutgers University Series on Human and Computer Vision, New Brunswick, NJ. February 1995.

Fundamental issues in motion perception. Department of Psychology, Hunter College, New York, NY. February 1995.

Fundamental issues in motion perception. Visual Sciences Center, University of Chicago, Chicago, IL. February 1995.

Feature-tracking, motion-energy, motion-boundaries. Sensation and Perception Seminar, New York University, NY. November 1994.

Steps towards understanding and overcoming impairments of color and motion perception. The Lighthouse Inc., New York, NY. October 1994.

Visual processing of motion boundaries. Department of Psychology, Rutgers University, Newark, NJ. April 1994.

Central adaptive mechanisms of human color vision. R. S. Dow Neurological Institute, Good Samaritan Hospital, Portland, OR. July 1993.

Central adaptive mechanisms of human color vision. Biopsychology Colloquium, University of Michigan, Ann Arbor, MI. June 1993.

Adaptation processes governed by the correlation and distribution of inputs. Schnurmacher Institute of Vision Research, SUNY College of Optometry, New York, NY. April 1993.

Measurement of higher-level color processes using video displays. National Research Council, Institute for National Measurement Standards, Ottawa, Canada. November 1992.

Spatial and chromatic interactions in color appearance. Eastman Kodak Company Research Laboratories, Rochester, NY. October 1992.

Associative processes in visual perception. Department of Psychology, University of Washington, Seattle, WA. July 1992.

The S-cone color system in normals and diabetics. R. S. Dow Neurological Institute, Good Samaritan Hospital, Portland, OR. July 1992.

Analysis of chromatic and luminance motion by neurons in Macaque MT cortex. Department of Neurobiology, Columbia University, New York, NY. March 1992.

The S-cone color system in normals and diabetics. Eye Research Institute, Boston, MA. February 1992.

Spatial properties of higher-level color processes. Department of Optical Engineering, University of Texas at Dallas, Dallas, TX. September 1991.

The organization of lateral interactions within color mechanisms. Third International Brain Research Organization, World Congress of Neuroscience, Montreal, Canada. August 1991.

Simultaneous color induction. Department of Ophthalmology, McGill University, Montreal, Canada. August 1991.

Chromatic mechanisms beyond linear opponency. NATO Advanced Research Workshop, Roros, Norway. August 1990.

Human color adaptation. Department of Neurobiology, State University of New York, Stony Brook, NY. April 1990.

Adaptation in the S-cone color system. Rank Prize Funds Conference, Gloucestershire, UK. December 1989.

Color induction with complex stimuli. Center for Neural Sciences, New York University, New York, NY. April 1988.

Color and spatial factors in visual induction. Department of Psychology, Rutgers University, New Brunswick, NJ. February 1988.

Individual differences in color perception. Optical Society of America, Annual Meeting, Seattle, WA. October 1986.

Color contrast and color constancy. IBM Watson Research Center, Yorktown Heights, NY. December 1985.

Induced desensitization. RCA Research Laboratories, Princeton, NJ. April 1985.

Spatial factors in chromatic habituation. Wilmer Institute Vision Research Seminar, Johns Hopkins University School of Medicine, Baltimore, MD. February 1985.

Failure of additivity in color matches. Center for Visual Science, University of Rochester, Rochester, NY. June 1983.

Useful facts about color vision. United States Institute for Theatre Technology, Annual Meeting, Corpus Christi, TX. March 1983.

#### **POST-DOCTORAL FELLOWS**

1994-96 B. Spehar, "Brightness perception in complex displays" (NIH).

1996-99 A. Li, "Neural basis of shape from texture " (NRSA).

1998-99 K. Morikawa, "Psychophysical studies of Glaucoma" (CIBA Glaucoma Institute).

1999-02 B. Khang, "Color constancy" (NIH).

2000-02 S. Tsujimura, "Psychophysical studies of Glaucoma" (CIBA Glaucoma Institute).

2000-01 A. F. Griffiths, "3-D visual illusions" (NIH).

2001-03 H. Smithson, "Mechanisms of color perception" (NIH).

2005-10 X. Meng, "Shape from motion and texture" (NIH).

2005-08 E. Cohen, "3-D shape representation" (NIH).

2008- A. Jain, "3-D deforming shapes" (NIH).

2009-10 A. Yoonessi, "Role of color in material perception" (NIH).

2010- M. Geisel, "Material affordances" (DFG).

#### **PH.D. STUDENTS**

A. G. Shapiro, "The effects of habituation on the response and interaction of color mechanisms", Columbia University, 1992.

W. L. Sachtler, "Visual processing of complex motion", Columbia University, 1993.

A. F. Griffiths, "Perceptual assumptions and perspective distortions in a three-dimensional shape illusion", Rutgers University, 1998.

R. Robilotto, "Perception of achromatic reflectance and transparency", SUNY Optometry, 2004.

R. Ennis, "Geometry and physiology of color perception", SUNY Optometry, 2013.

S. J. Kombar, "Neural mechanisms of Light and Dark perception", SUNY Optometry, 2008-.

M. Jansen, "Cortical color mechanisms and natural tasks", SUNY Optometry, 2010-.

- L. Wool, "Color Saliency", SUNY Optometry, 2011-.
- R. Bachy, SUNY Optometry, 2012-.
- E. Koch, SUNY Optometry, 2013-.

### **O.D.M.S. STUDENTS (SUNY)**

- R. Robilotto 1998.
- C. Wong 2007.
- K. Shen 2007.
- I. Ritter 2008.
- S. Radner 2012.
- L. Zhao 2012.
- J. Bartov 2013.

### **UNDERGRADUATE RESEARCH STUDENTS (COLUMBIA)**

- B. Yoshimi 1988-90.
- D. Halevy 1989-91.
- N. Zipser 1992-93.
- J. DeBonet 1993-95.

### **TEACHING**

- Pro-Seminar in Vision Science II (SUNY)
- Color Perception (SUNY)
- Three-dimensional shape perception (SUNY).
- Computational Developments in Visual Perception (SUNY)
- Color Vision (SUNY)
- Spatiotemporal processes (SUNY)
- Computational Approaches to Human Vision (Columbia University)
- Physiological Psychology II (Columbia University)
- Sensation and Perception (Columbia University)
- Mathematical Psychology (University of Chicago)
- Advanced Statistics (Roosevelt College)

### **GRANT REVIEW COMMITTEES**

- 2012- National Institutes of Health, Mechanisms of Sensory, Perceptual, and Cognitive Processes (SPC) Study Section, (Permanent member).
- 2010- College of CSR Reviewers

- 1997-2001 National Institutes of Health, Visual Sciences B Study Section, Division of Research Grants (Permanent member).  
1996- Schnurmacher Institute for Vision Research, SUNY College of Optometry.

### **JOURNAL EDITORIAL BOARDS**

1992- COLOR Research and Application.

### **PROFESSIONAL SOCIETY COMMITTEES**

MODVIS: Computational and Mathematical Models in Vision, Organizing committee 2014-  
International Color Vision Society, Board of Directors, 2010-  
European Conference on Visual Perception 2001. Organizing Committee.  
Optical Society of America, Tillyer Award Committee. (2001-2004). Chair (2003)  
CGIP 2000, First International Conference on Color in Graphics and Image Processing.  
International Program Committee.  
Optical Society of America, Light and Color in the Open Air. Technical Program Committee  
(1996-97).  
Optical Society of America, Color Technical Committee. Chair (1994-96); Vice-Chair (1993-94).

### **ADVISORY BOARDS**

EU PRISM (Perceptual Representation of Illumination, Shape and Material) Network, International  
Advisory Board  
Education Enrichment Foundation (EduEnrich), Board of Advisors.

### **STATE UNIVERSITY OF NEW YORK COMMITTEES & COUNCILS**

State University of New York Research Council (2012-)  
State University of New York, Distinguished Professor Advisory Board (2012-)  
SUNY Eye Institute, Steering Committee (2009- ).  
SUNY Eye Institute, Chair, Library Committee (2009- ).

### **GRADUATE CENTER FOR VISION RESEARCH & DEPARTMENTAL COMMITTEES**

SUNY Optometry VisioNYC representative (2005- ).  
Institutional Research & Planning Committee, SUNY Optometry (2008-9)  
Strategic Planning Committee, SUNY Optometry (2007- 8).  
Research Council, Chair, SUNY Optometry (2005-8).  
“Proteins to People: The 1st SUNY Vision Symposium”, Organizer (March 1999).  
Committee on Research Planning, Chair, SUNY Optometry (1999-2005 ).  
Committee on Graduate Curriculum, Chair, SUNY Optometry (1998-2008).



Retinal and CNS Clinical Research Group, Chair, SUNY Optometry (1998-99).  
Institutional Review Board, SUNY Optometry (1996- 2000).  
Colloquium and Visiting Scientist Committees, Chair, SUNY Optometry (1997-2007).  
Search Committee for Computer Systems Administrator, Chair, SUNY Optometry (1995-96).  
Committee on Faculty Graduate Qualifications, SUNY Optometry (1997- 2002).  
Comprehensive Examination Committee, SUNY Optometry (1996-2001).  
Library Committee, Columbia University (1987-94).  
Committee on Scientific Equipment, Chair, Department of Psychology, Columbia University (1990-94).  
Committee on Computers and Computer Networks, Department of Psychology, Columbia University (1985-91).

### **GRANT REVIEWS**

Air Force Office of Science and Research  
Fight for Sight  
German-US Collaboration in Computational Neuroscience  
Human Frontiers Science Program Organization  
National Institutes of Health CVP  
National Institutes of Health VISB  
National Institutes of Health IFCN-8  
National Institutes of Health IFCN-L  
National Science Foundation  
NSF-NIH Collaborative Research in Computational Neuroscience CRCNS  
Research Grants Council of Hong Kong  
Science and Engineering Research Council (U.K.)  
Swiss National Science Foundation  
U.S. Civilian Research & Development Foundation (CRDF) for the Independent States of the Former Soviet Union  
Wellcome Trust

### **JOURNAL REVIEWS**

Applied Optics  
Attention, Perception and Psychophysics  
Behavioral and Brain Sciences  
Clinical Visual Science  
Color Research and Application  
Current Biology  
IEEE Systems, Man and Cybernetics

IEEE Transaction on Haptics  
IEEE Transactions on Image Processing  
Image and Vision Computing  
Investigative Ophthalmology and Visual Science  
Journal of Glaucoma  
Journal of Mathematical Psychology  
Journal of Neurophysiology  
Journal of Neuroscience  
Journal of the Optical Society of America  
Journal of Vision  
Nature  
Nature Neuroscience  
Neural Computation  
Neural Networks  
Neuron  
Optics Letters  
Perception  
Perception and Psychophysics  
Psychological Science  
PLoS Computational Biology  
PLoS One  
Proceedings of the National Academy of Science  
Proceedings of the Royal Society: Biological Sciences  
Psychological Science  
Science  
SIGGRAPH Proceedings  
Spatial Vision  
Visual Neuroscience  
Vision Research