



CURRICULUM VITAE

LAURENCE T MALONEY

PROFESSOR, PSYCHOLOGY & NEURAL SCIENCE

EDUCATION

Yale University	Mathematics	BA	1970-73
Stanford University	Mathematical Statistics	MS	1979-82
Stanford University	Psychology	PhD	1979-85

APPOINTMENTS

- 2004 – *present* Professor, Psychology and Neural Science, New York University
- 1990 – 2004 Associate Professor, Psychology and Neural Science, New York University
- 1988 – 1990 Assistant Professor, Psychology and Neural Science, New York University
- 1985 – 1990 Assistant Professor, Psychology and EECS, University of Michigan, Ann Arbor
- 1984 – 1985 Research Scientist, NASA-Ames Research Center, Mountain View, California
- 1973 – 1979 Computer Scientist. Most recently employed at Bolt Beranek and Newman Inc., Cambridge, Massachusetts.

AWARDS, HONORS & FELLOWSHIPS

- Humboldt Research Award of the Alexander von Humboldt Foundation, Germany, 2008.
- Troland Research Award of the National Academy of Sciences, USA, 1987.
- Fellow, Zentrum für interdisziplinäre Forschung, Bielefeld, Germany, 1995 - 1996.
- Erasmus Mundus CIMET Scholar, University of Granada, Spain, 2008.
- WICN Visiting Scholar, Wales Institute of Cognitive Neuroscience, Bangor University, Bangor, Wales, 2008.
- Gastprofessor, University of Giessen, Giessen, Germany, 2008-2009.
- Forchheimer professor, Computer Science, Hebrew University, Jerusalem, 1999.
- Professeur invité, Institut de Psychologie, Université de Paris V, 2006.
- Gastdozent, University of Freiburg, Freiburg, Germany, 1998-1999.
- Fellow, Deutscher Akademischer Austausch Dienst, 1997.
- Bourse d'Accueil Fellowship, Région Rhône-Alpes, France, 2000.
- Associate, National Research Council, National Academy of Sciences, USA, 1984 – 1985.
- Whitehead Presidential Fellow, New York University, 1990 - 1991.
- Golden Dozen teaching award, New York University, 1994.

GRANTS

Perception and action: Ideal observers and actors. \$1,200,000 direct+indirect costs, co-PI (Michael Landy, PI), National Institutes of Health/National Eye Institute, EY08266, 2004-2008.

Depth and surface properties: Perception and action, \$722,000 direct+indirect costs, co-PI (Michael Landy, PI), National Institutes of Health/National Eye Institute, EY08266, 2001-2004.

OPTOTRAK motion measurement system. \$107,782, direct costs (no indirect), co-PI (Karen Adolph, PI), National Institutes of Health/NCRR.

The representations underlying perceptual judgment and action, \$600,000 direct+indirect costs, co-PI (Pascal Mamassian, University of Glasgow, PI), Human Frontiers Science Program, RG0109/1999-B, 1999-2003.

Perception of Depth and Surface Properties, \$699,387 direct, \$1,058,221 direct+indirect costs, co-PI (M. S. Landy, PI), National Institutes of Health, 1995-2000.

Neural development and chromatic aberration, \$113,417 direct and indirect costs, Principal Investigator, 25% effort Academic, 67% Summer, Air Force Office of Scientific Research F49620-92-J-0187, 1992-1994.

Shape representation and multiple depth cues, \$279,301 direct costs, co-PI (M. S. Landy, PI), National Institutes of Health, 1992-1995.

Fusion and calibration of multiple depth cues, \$208,940 direct costs, co-PI (M. S. Landy, PI), National Institutes of Health EY08266, 1989-1992.

TEACHING EXPERIENCE (Representative Courses)***Graduate***

Simulation and Data Analysis
 Mathematical Statistics
 Multivariate Statistics
 Linear Systems
 Judgment and Decision Making
 Mathematical Psychology

Undergraduate

Introductory Statistics
 Perception
 Cognition
 Cognitive Science

PROFESSIONAL SERVICE

Editorial Board, *Journal of Vision*, January, 2005 -

Editorial Board, *Psychological Science*, January, 2007 - December, 2008.

Organizer (with David Brainard, Anya Hurlbert), Workshop on "Surface color and material perception," University of Pennsylvania, October, 2008.

Member, NSF Review Panel "Collaborative research in computational neuroscience" (Panel D: P081120), March 31-April 1, 2008.

Organizer (with Sergei Gepshtein), Satellite symposium on "Visual organization and computation", VSS Meeting, Sarasota, FL, May, 2007.

Feature Editor (with James Elder, Sergei Gepshtein), Special issue: "Perceptual organization and neural computation", *Journal of Vision*, 2007-2008.

Member, College of Reviewers, Canada Research Chair, 2006-present.

Advisory Board, DIRAC Project, IST-FP6 (Information Society Technologies, Framework Project 6, European Union), Martigny, CH, 2006-2010

Feature Editor (with David C. Knill, Julia Trommershäuser), Special issue: "Sensori-motor processing and goal-directed movement", *Journal of Vision*, 2006-2007.

Scientific Committee, International Color Association, AIC2005 Quadrennial Meeting, Granada, Spain, May, 2005.

Feature Editor (with David Brainard), Special issue: "Color and material perception in complex scenes" *Journal of Vision*, 2003-2004.

Organizer (with David Brainard), Workshop on "Color and lightness in complex scenes", New York University, New York, New York, October 2003.

Organizer (with Michael Landy), Workshop on "Perception, action, and statistical decision theory", New York, New York, June 2003.

Feature Editor (with James Schirillo), Special issue: "Articulation" *Perception*, 2002.

Feature Editor (with Rainer Mausfeld & Dieter Heyer), Special issue: "The case for cognitive universals" *Behavioral & Brain Sciences*, 2002.

Member, Study Panel on Augmented Cognition, DARPA/ISAT, August, 2001.

Member, 1999-2000, International Program Committee, CGIP'2000 Conference.

Supervisor, Conference on *Visual Information Assimilation in Man and Machine*, Ann Arbor, Michigan, June 1990.

Program Chair, *Neural Networks Symposium*, at the Annual Meeting of the Optical Society of America, Santa Clara, California, October 1988.

Organizer, Workshop on "Exploratory vision: The active eye" Ann Arbor, Michigan, June 1988.

Member, Study Panel on Expert Systems, National Research Council of the National Academy of Sciences, November, 1986.

Books

3. Gepshtein, S. & **Maloney, L. T.** (in preparation), *Handbook of Perceptual Organization*. New York: Oxford University Press, in preparation.
2. Knoblauch, K. & **Maloney, L. T.** (2009), *Modeling Psychophysical Data in R*. New York: Springer-Verlag, *expected Fall, 2009*.
1. Landy, M. S., **Maloney, L. T.**, and Pavel, M. [Eds] (1996), *Exploratory Vision: The Active Eye*. New York: Springer-Verlag.

ARTICLES, CHAPTERS & PROCEEDINGS

Authors in italics were pre- or post-doctoral students working with me.

2009 and in press

106. *Wu, S.-W.*, Delgado, M. & **Maloney, L. T.** (2009), Decision making under risk compared to an equivalent motor task, *Proceedings of the National Academy of Science*, *in press*, 2/2009.
105. Glanzer, M., Hilford, A. & **Maloney, L. T.** (2009), Likelihood ratio decisions in memory: Three implications. *Psychonomic Bulletin & Review*, *in press*, 12/2008.
104. *Fulvio, J. M.*, Singh, M. & **Maloney, L. T.** (2009), An experimental criterion for consistency in the interpolation of partially-occluded contours. *Journal of Vision*, *in press*, 12/2008.
103. **Maloney, L. T.** & Mamassian, P. (2009), Bayesian decision theory as a model of visual perception: Testing Bayesian transfer. *Visual Neuroscience*, *in press*, 11/2008.
102. Dal Martello, M. F. & **Maloney, L. T.** (2009), Cues to kin recognition. In Trommershäuser, J., Körding, K. P. & Landy, M. S. [Eds] (2009), *Sensory Cue Integration*, New York: Oxford University Press.
101. Landy, M. S., *Ho, Y.-X.*, *Serwe, S.*, Trommershäuser, J., & **Maloney, L. T.** (2009), Cues and pseudo-cues in shape and texture perception. In Trommershäuser, J., Körding, K. P. & Landy, M. S. [Eds] (2009), *Sensory Cue Integration*, New York: Oxford University Press.
100. **Maloney, L. T.** (2009), Perceptual-motor integration. In Goldstein, E. B. [Ed], *Encyclopedia of Perception*, Sage Publications, *in press*, 2/2009.
99. **Maloney, L. T.** (2009), Surface material properties perception. In Goldstein, E. B. [Ed], *Encyclopedia of Perception*, Sage Publications, *in press*, 1/2009.

2008

98. Knoblauch, K. & **Maloney, L. T.** (2008), Estimating classification images with generalized additive models. *Journal of Vision*, **8(16):10**, 1-19, <http://journalofvision.org/8/16/10/>, doi:10.1167/8.16.10.
97. *Hudson, T. E.*, **Maloney, L. T.** & Landy, M. S. (2008), Optimal compensation for temporal uncertainty in movement planning. *PLoS Computational Biology*, **4(7):e100130**, 1-9.
96. Trommershäuser, J., **Maloney, L. T.** & Landy, M. S. (2008), Decision making, movement planning and statistical decision theory. *Trends in Cognitive Science*, **12(8)**, 291-297.
95. *Ho, Y.-H.*, Landy, M. S. & **Maloney, L. T.** (2008), Conjoint measurement of gloss and surface texture. *Psychological Science*, **19(2)**, 196-204.
94. Kitazaki, M., *Kobiki, H.* & **Maloney, L. T.** (2008), The effect of pictorial depth cues, binocular disparity and motion parallax depth cues on lightness perception in three-dimensional virtual scenes, *PLoS ONE*, **3(9): e3177**, 1-9.

93. Yeshurun, Y., Carrasco, M. & **Maloney, L. T.** (2008), Bias and sensitivity in two-interval forced-choice procedures, *Vision Research*, **48**, 1837-1851.
92. Cohen, E. H., Singh, M. & **Maloney, L. T.** (2008), Perceptual segmentation and the perceived orientation of dot clusters: The role of robust statistics. *Journal of Vision*, **8(7)**, 1-13.
91. Tokunaga, R., Logvinenko, A. D. & **Maloney, L. T.** (2008), Multidimensional scaling of dissimilarities between yellow-blue surfaces rated under neutral light sources. *Visual Neuroscience*, **25**, 395-398.
90. Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2008), Consistency of location and gradient judgments of visually-interpolated contours, *Vision Research*, **48(6)**, 831-849.
89. Knoblauch, K. & **Maloney, L. T.** (2008), MLDS: Maximum likelihood difference scaling in R. *Journal of Statistical Software*, **25(2)**, 1-26.
88. Logvinenko, A., Petrini, K. & **Maloney, L. T.** (2008), A scaling analysis of the snake lightness illusion. *Perception & Psychophysics*, **70(5)**, 828-840.
87. Gepshtein, S., Elder, J. & **Maloney, L. T.** (2008), Perceptual organization and neural computation, *Journal of Vision*, **8(7):i**, 1-4.
86. Trommershäuser, J., **Maloney, L. T.** & Landy M. S. (2008), The expected utility of movement. In Glimcher, P. W., Camerer, C., Fehr, E. & Poldrack, R. A. (Eds), *Neuroeconomics*. New York: Academic Press, pp. 95-111.

2007

85. Hudson, T. E., **Maloney, L. T.** & Landy, M. S. (2007), Planning movements toward probabilistic mixtures of possible targets, *Journal of Neurophysiology*, **98**, 3034-3046.
84. Doerschner, K., Boyaci, H. & **Maloney, L. T.** (2007), Testing limits on matte surface color perception in three-dimensional scenes with complex light fields, *Vision Research*, **47**, 3409-3423.
83. Charrier, C., **Maloney, L. T.**, Cherifi, H. & Knoblauch, K., (2007), Maximum likelihood difference scaling of image quality in compression-degraded images. *Journal of the Optical Society of America A*, **24**, 3814-3826.
82. Dean, M., Wu, S.-W. & **Maloney, L. T.** (2007), Trading off speed and accuracy in rapid, goal directed movements, *Journal of Vision*, **7(5):10**, 1-12.
81. Rhodes, G., **Maloney, L. T.**, Turner, J. & Ewing, L. (2007), Adaptive face coding and discrimination around the average face, *Vision Research*, **47**, 974-989.
80. Ho, Y.-X., **Maloney, L. T.** & Landy, M. S. (2007), The effect of viewpoint on perceived visual roughness, *Journal of Vision*, **7**, 1-16.
79. Knill, D. C., **Maloney, L. T.** & Trommershäuser, J. (2007), Sensorimotor processing and goal-directed movement. *Journal of Vision*, **7(5):i**, 1-2.
78. **Maloney, L. T.**, Trommershäuser, J. & Landy, M. S. (2007), Questions without words: A comparison between decision making under risk and movement planning under risk. In Gray, W. (Ed), *Integrated Models of Cognitive Systems*. New York, NY: Oxford University Press, pp. 297-315.

2006

77. Trommershäuser, J., Landy, M. S. & **Maloney, L. T.** (2006), Humans rapidly estimate expected gain in movement planning. *Psychological Science*, **17**, 981-988.
76. Dal Martello, M. F. & **Maloney, L. T.** (2006), Where are kin recognition signals in the human face? *Journal of Vision*, **6**, 1356-1366.
75. Trommershäuser, J., Mattis, J., Landy, M. S. & **Maloney, L. T.** (2006), Limits to human movement planning with delayed and unpredictable onset of needed information. *Experimental Brain Research*, **175**, 276-284.

74. *Schultz, S., Doerschner, K., & Maloney, L. T.* (2006), Color constancy and hue scaling. *Journal of Vision*, **6**, 1102-1116.
73. *Boyaci, H., Doerschner, K., Snyder, J. L. & Maloney, L. T.* (2006), Surface color perception in three-dimensional scenes. *Visual Neuroscience*, **23**, 311-321.
72. **Maloney, L. T.** & Dal Martello, M. F. (2006), Kin recognition and the perceived facial similarity of children, *Journal of Vision*, **6**, 1047-1056.
71. *Fulvio, J. M., Singh, M. & Maloney, L. T.* (2006), Combining achromatic and chromatic cues to transparency, *Journal of Vision*, **6**, 760-776.
70. *Logvinenko, A. D. & Maloney, L. T.* (2006), The proximity structure of achromatic surface colors and the impossibility of asymmetric lightness matching. *Perception & Psychophysics*, **68**, 76-83.
69. *Ho, Y.-X., Landy, M. S. & Maloney, L. T.* (2006), How illuminant direction affects perceived visual roughness, *Journal of Vision*, **6**, 634-648.
68. *Wu, S.-W., Trommershäuser, J., Maloney, L. T. & Landy, M. S.* (2006), Limits to human movement planning in tasks with asymmetric gain landscapes. *Journal of Vision*, **6**, 53-63.
67. *Boyaci, H., Doerschner, K., & Maloney, L. T.* (2006), Cues to an equivalent lighting model, *Journal of Vision*, **6**, 106-118.
66. **Maloney, L. T.** (2006), Perception of surface color in three-dimensional scenes: Outside the Mondrian singularity. *Transactions of the Technical Committee on Psychological and Physiological Acoustics*, Acoustical Society of Japan, **36**, 753-758.
65. *Fulvio, J.M., Singh, M., & Maloney, L.T.* (2006). Testing the relatability hypothesis: Inducer offset, not turning angle, is critical for visual interpolation. *Visual Cognition* (Object Perception, Attention, and Memory (OPAM) 2006 Conference Report), *15*(1), 83-87.
64. *Fulvio, J. M., Singh, M. & Maloney, L. T.* (2006), Consistency of location and gradient judgments of visually-interpolated contours. *Computer Vision and Pattern Recognition, Proceedings '06*, 0-7695-2646-2/06.

2005

63. **Maloney, L. T.**, Dal Martello, M. F., Sahm, C. & Spillmann, L. (2005), Past trials influence perception of ambiguous motion quartets through pattern completion. *Proceedings of the National Academy of Sciences*, **102**, 3164-3169.
62. *Trommershäuser, J., Gepshtein, S., Maloney, L. T., Landy, M. S. & Banks, M. S.* (2005), Compensation for changes in effective movement variability. *Journal of Neuroscience*, **25**, 7169-7178.
61. *Graf, E. W., Warren, P. A. & Maloney, L. T.* (2005), Explicit estimation of visual uncertainty in human motion processing. *Vision Research*, **45**, 3050-3059.
60. *Snyder, J. L., Doerschner, K., & Maloney, L. T.* (2005), Illumination estimation in three-dimensional scenes with and without specular cues, *Journal of Vision*, **5**, 863-877.
59. *Wolfe, U., Maloney, L. T. & Tam, M.* (2005), Distortions of perceived length in the fronto-parallel plane: Tests of perspective theories, *Perception & Psychophysics*, **67**, 967-979.
58. **Maloney, L. T.**, *Boyaci, H. & Doerschner, K.* (2005), Surface color perception as an inverse problem in biological vision. *Proceedings of the SPIE - IS & T Electronic Imaging*, **5674**, 15-26.

2004

57. *Boyaci, H., Doerschner, K. & Maloney, L. T.* (2004), Perceived surface color in binocularly-viewed scenes with two light sources differing in chromaticity. *Journal of Vision*, **4**, 664-679.

56. Warren, P.A. **Maloney, L. T.** & Landy, M. S. (2004), Interpolating sampled contours in 3D: Perturbation analyses. *Vision Research*, **44**, 815-832.
55. Doerschner, K., Boyaci, H. & **Maloney, L. T.** (2004), Human observers compensate for secondary illumination originating in nearby chromatic surfaces, *Journal of Vision*, **4**, 92-105.
54. Brainard, D. H. & **Maloney, L. T.** (2004), Perception of color and material properties in complex scenes, *Journal of Vision*, **4**, ii-iv.

2003

53. Trommershäuser, J., **Maloney, L. T.** & Landy, M. S. (2003), The consistency of bisection judgments in visual grasp space. *Journal of Vision*, **3**, 795-807.
52. Oruç, I., **Maloney, L. T.**, & Landy, M. S. (2003), Weighted linear cue combination with possibly correlated error, *Vision Research*, **43**, 2451-2468.
51. Trommershäuser, J., **Maloney, L. T.** & Landy, M. S. (2003), Statistical decision theory and rapid, goal-directed movements. *Journal of the Optical Society A*, **20**, 1419-1433. [Included in Virtual Journal of Biological Physics Research](#), July 15, 2003.
50. **Maloney, L. T.** & Yang, J. N. (2003), Maximum likelihood difference scaling. *Journal of Vision*, **3**, 573-585.
49. Boyaci, H., **Maloney, L. T.** & Hersh, S. (2003), The effect of perceived surface orientation on perceived surface albedo in three-dimensional scenes, *Journal of Vision*, **3**, 541-553.
48. Trommershäuser, J., **Maloney, L. T.** & Landy, M. S. (2003), Statistical decision theory and tradeoffs in motor response. *Spatial Vision*, **16**, 255-275.
47. **Maloney, L. T.** & Yang, J. N. (2003), The illumination estimation hypothesis and surface color perception. Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 335-358.
46. **Maloney, L. T.** (2003), Surface color perception and environmental constraints. In Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 279-299.
45. **Maloney, L. T.** (2003), Surface color perception in constrained environments [commentary]. *Behavioral & Brain Sciences*, **26**, 38-39.
44. **Maloney, L. T.** (2003). Statistical decision theory and evolution [research focus]. *Trends in Cognitive Science*, **7**, 473-475.
43. **Maloney, L. T.** (2003). The processing of chromatic information [commentary]. In Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 153-154.
42. **Maloney, L. T.** (2003). The importance of realistic models of surface and light in the study of human colour vision [commentary]. In Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 243-246.
41. **Maloney, L. T.** (2003). Fitting linear models to data [commentary]. In Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 275-278.
40. **Maloney, L. T.** (2003). Surface colour perception and its environments [commentary]. In Mausfeld, R., & Heyer, D. [Eds], *Colour: Connecting the Mind to the Physical World*. Oxford: Oxford University Press, pp. 329-330.

1998 - 2002

39. **Maloney, L. T.** (2002), Illuminant estimation as cue combination. *Journal of Vision*, **2**, 493-504.
38. Warren, P. A., **Maloney, L. T.**, & Landy, M. S. (2002), Interpolating sampled contours in 3D: Analyses of variability and bias. *Vision Research*, **42**, 2431-2446.

37. **Maloney, L. T.** & Schirillo, J. A. (2002), Color constancy, lightness constancy, and the articulation hypothesis. *Perception*, **31**, 135-139.
 36. Ernst, M.O., Banks, M. S., Wichmann, F., **Maloney, L. T.** & Bühlhoff, H. H. (2002) Combining sensory information to improve visualization. In Moorhead, R., Gross, M., and Joy, K.I. [Eds], *IEEE Visualization 2002 Conference Proceedings*, 571-574.
 35. **Maloney, L. T.** (2002), Statistical decision theory and biological vision. In Heyer, D. & Mausfeld, R. [Eds], *Perception and the Physical World: Psychological and Philosophical Issues in Perception..* New York: Wiley, pp. 145-189.
 34. Mamassian, P., Landy, M. S., & **Maloney, L. T.** (2002), Bayesian modeling of visual perception. In Rao, R., Lewicki, M., & Olshausen, B. [Eds], *Probabilistic Models of the Brain; Perception and Neural Function.* Cambridge, MA: MIT Press, 13-36.
 33. **Maloney, L. T.**, Mausfeld, R. & Heyer, D. (2002), Introduction to the special issue on the work of Roger Shepard: The case for cognitive universals, *Behavioral & Brain Sciences*, **24**, 579-580.
 32. **Maloney, L. T.** (2002), *Human Perception of Objects; Early Visual Processing of Spatial Form Defined by Luminance, Color, Texture, Motion and Binocular Disparity* by D. M. Regan [review], *Perception*, **31**, 1031-1032.
 31. Yang, J. N. & **Maloney, L. T.** (2001), Illuminant cues in surface color perception: Tests of three candidate cues. *Vision Research*, **41**, 2581-2600.
 30. Bonnardel, V. & **Maloney, L. T.** (2000), Daylight, biochrome surfaces, and human chromatic response in the Fourier domain. *Journal of the Optical Society of America*, **17**, 677-687.
 29. **Maloney, L. T.** (1999), Physics-based approaches to modeling surface color perception. In Gegenfurtner, K. R., & Sharpe, L. T. [Eds] (1999), *Color Vision: From Genes to Perception.* Cambridge, UK: Cambridge University Press, pp. 387-422.
 28. Geiger, D., Rudra, A., & **Maloney, L. T.** (1998), Features as sufficient statistics. In Jordan M., Kearns, M., & Solla, S. (1998), *Advances in Neural Information Processing Systems 10.* Cambridge, MA: MIT Press, pp. 221-227.
- [1993 - 1997](#)
27. Hon, A. K., **Maloney, L. T.**, & Landy, M. S. (1997), The influence function for visual interpolation. *Proceedings of the SPIE: Human Vision and Electronic Imaging II*, **3016**, 409-419.
 26. **Maloney, L. T.** (1996), Exploratory vision: Some implications for retinal sampling and reconstruction. In Landy, M. S., **Maloney, L. T.**, and Pavel, M. [Eds.], *Exploratory Vision: The Active Eye.* New York: Springer-Verlag, 121-156.
 25. Knoblauch, K., & **Maloney, L. T.** (1996), Testing the indeterminacy of color mechanisms from color discrimination data. *Vision Research*, **36**, 295-306.
 24. Poirson, A. B. & **Maloney, L. T.** (1996), A video-input device that displays high-luminance, high-resolution color images. *Vision Research*, **36**, 2575-2578.
 23. Landy, M. S., **Maloney, L. T.**, Johnston, E. B., & Young, M. (1995), Measurement and modeling of depth cue combination: In defense of weak fusion. *Vision Research*, **35**, 389-412.
 22. **Maloney, L. T.**, Wuerger, S. M. & Krauskopf, J. (1995), A method for testing Euclidean representations of proximity judgments in linear psychological spaces. In Luce, R. D., D'Zmura, M., Hoffman, D., Iverson, G. J. & Romney, A. K. [Eds], *Geometric Representations of Perceptual Phenomena; Papers in Honor of Tarow Indow on his 70th Birthday.* Mahwah, NJ: Erlbaum.
 21. Wuerger, S. M., **Maloney, L. T.**, & Krauskopf, J. (1995), Proximity judgments in color space: Tests of a Euclidean color geometry. *Vision Research*, **35**, 827-835.
 20. Young, M. J., Landy, M. S. & **Maloney, L. T.** (1993), A perturbation analysis of depth perception from combinations of texture and motion cues. *Vision Research*, **33**, 2685-2696.

19. **Maloney, L. T.** (1993), Color constancy and color perception: the linear models framework. In Meyer, D. E., and Kornblum, S. [Eds], *Attention & Performance XIV: Synergies in Experimental Psychology, Artificial Intelligence, and Cognitive Neuroscience -- A Silver Jubilee*. Cambridge, Massachusetts: MIT Press, 59-78.
18. Chan, A. S., Butters, N. Paulsen, J. S., Salmon, D. P., Swenson, M. R. **Maloney, L. T.** (1993), An assessment of the semantic network in patients with Alzheimer's-disease. *Journal of Cognitive Neuroscience*, **5**, 254-261.

1988 – 1992

17. **Maloney, L. T.** (1992), A mathematical framework for biological color vision [commentary]. *Behavioral & Brain Science*, **15**, 45.
16. **Maloney, L. T.**, and Thomas, E. A. C. (1991), Distributional assumptions and observed conservatism in the theory of signal detectability. *Journal of Mathematical Psychology*, **35**, 443-470.
15. Gerrig, R., **Maloney, L. T.** & Tversky, A. (1991), Validating the dimensional structure of psychological spaces: Applications to personality and emotions. In D. R. Brown & J. E. K. Smith [Eds] *Frontiers of Mathematical Psychology: Essays in Honor of Clyde Coombs*, New York: Springer-Verlag, pp. 138-165.
14. Landy, M. S., **Maloney, L. T.** & Young, M. J. (1991). Psychophysical estimation of the human depth combination rule. *Proceedings of the SPIE: Sensor Fusion III*, **1383**, 247-254.
13. **Maloney, L. T.** (1990), The slope of the psychometric function at different wavelengths. *Vision Research*, **30**, 129-136.
12. **Maloney, L. T.** (1990), Confidence intervals for the parameters of psychometric functions. *Perception & Psychophysics*, **47**, 127-134.
11. **Maloney, L. T.**, & Landy, M. S. (1989). A statistical framework for robust fusion of depth information. *Proceedings of the SPIE: Visual Communications and Image Processing IV*, **1199**, 1154-1163.
10. **Maloney, L. T.**, and Ahumada, A. J. (1989), Learning by assertion: A method for calibrating a simple visual system. *Neural Computation*, **1**, 387-395.
9. **Maloney, L. T.** & Koh, K. (1988), A method for calibrating a visual display to high accuracy. *Behavior Research Methods, Instruments & Computers*, **20**, 372-389.

1987 and before

8. **Maloney, L. T.** & Gelman, S.A.. (1987), Measuring the influence of context: the interpretation of dimensional adjectives. *Language & Cognitive Processes*, **2**, 205-215.
7. **Maloney, L. T.** (1986), Evaluation of linear models of surface spectral reflectance with small numbers of parameters. *Journal of the Optical Society of America A*, **3**, 1673-1683.

Reprinted in

Healy, G., Shafer, S., & Wolfe, L., [Eds], (1992), *Physics-Based Vision: Principles and Practice*. Jones & Bartlett, ----.

6. **Maloney, L. T.**, and Wandell, B. A. (1986), Color constancy: A computational method for recovering surface spectral reflectance. *Journal of the Optical Society of America A*, **3**, 29-33.

Reprinted in

Fischler, M., and Firschein, O. [Eds] (1987), *Readings in Computer Vision: Issues, Problems, Principles, and Paradigms*. Los Altos, California: Morgan Kaufmann, 293-297.

Ullman, S., and Richards, W., [Eds] (1990), *Image Understanding, 1989*. Norwood, NJ: Ablex, 215-224.

Kasturi, R., & Jain, R. C. [Eds] (1991), *Computer Vision: Advances & Applications*. Los Alamitos, CA: IEEE Computer Press, 11-15.

Healy, G., Shafer, S., & Wolfe, L., [Eds], (1992), *Physics-Based Vision: Principles and Practice*. Jones & Bartlett, ----.

5. Gelman, S. A., Ravn, K. E., and **Maloney, L. T.** (1985), When "big" does not refer to overall size: Dimensional adjectives in context. *Papers and Reports on Child Language Development*, **24**, 62-69.
4. **Maloney, L. T.** (1984), *Computational approaches to color constancy*. Stanford University: Ph.D. Dissertation.
3. **Maloney, L. T.**, and Wandell, B. A. (1984), A model of a single visual channel's response to weak test lights. *Vision Research*, **24**, 633-640.
2. **Maloney, L. T.** (1983), Nearest neighbor analysis of point processes: Simulations and evaluations. *Journal of Mathematical Psychology*, **27**, 251-260.
1. Wandell, B. A., Sanchez, J., and **Maloney, L. T.** (1982), Adaptation in the long-wavelength pathways. *Vision Research*, **22**, 1071-1074.

RECENT INVITED CONFERENCE ADDRESSES AND WORKSHOP PRESENTATIONS

- Maloney, L. T.** (2010), Perception of color and material in 3D. Keynote address, Innovative Manufacturing Research Conference, Heriot-Watt University, Edinburgh, Scotland, April, 2010.
- Maloney, L. T.** (2009), Statistical models of perception and action. European Research Training Network CODDE, "Computational Vision", Rauschholzhausen, Germany, August, 2009.
- Maloney, L. T.** (2009), Perception of surface color, surface material and illumination in three-dimensional scenes. Symposium on Color Constancy, OSA Fall Vision Meeting, Seattle, WA, September 24-27, 2009.
- Maloney, L. T.** (2009), Illuminant estimation as cue combination. CVR Vision Conference: Vision in 3D Environments., June 23-26, 2009.
- Maloney, L. T.** (2009), Measuring and modeling visual appearance of surfaces. Symposium "Modern approaches to modeling visual data" at the Vision Sciences Society Meeting, Naples, FL, May, 2009.
- Maloney, L. T.** (2009), Perception of color and material in 3D. CNRS Ecole de printemps 2009: "Couleurs: effets d'échelles", Roussilon, France, March, 2009.
- Maloney, L. T.** (2008), Perception of transformations induced by changing scene illumination. Workshop: "Surface color and material perception", University of Pennsylvania, Philadelphia, PA, October, 2008.
- Maloney, L. T.** (2008), Unnatural tasks, unnatural scenes" Testing Bayesian models of perception and action. European Summer School, "Visual neuroscience: from spikes to awareness", Rauschholzhausen, Germany, August-September, 2008.
- Maloney, L. T.** (2008), Testing Bayesian models of perception, action and cognition: The importance of unnatural scenes. Gordon Research Conference: Sensory coding and the natural environment, Lucca (Barga), Italy, July, 2008.
- Maloney, L. T.** (2008), Surface color perception in three-dimensional scenes. Symposium: "The appearance of colored objects" International Congress of Psychology, Berlin, Germany, July, 2008.
- Maloney, L. T.** (2008), Decision making under risk, movement planning under risk. Symposium: Perception and performance in real, complex environments. International Congress of Psychology, Berlin, Germany, July, 2008.
- Maloney, L. T.** (2008), Multiple material surface properties, multiple visual cues. Symposium S8 "Surface material perception" at the Vision Sciences Society Meeting, Naples, FL, May, 2008.
- Maloney, L. T.** (2008), Bayesian decision theory, visual perception and the planning of movement. Workshop: "Natural environments, tasks and intelligence," *Center for Perceptual Systems*, University of Texas, Austin, March, 2008.
- Maloney, L. T.** (2008), Anthropocentric realism in three-dimensional scenes. Conference: "The horizons of vision research", *Center for Cognitive Science*, California State University, Long Beach, CA March, 2008.
- Maloney, L. T.** (2007), Bayesian decision theory, visual perception and the planning of movement. "NSF Conference on mathematics and psychology" Institute for Mathematical Behavioral Sciences, Irvine, CA, November, 2007.
- Maloney, L. T.** (2007), Perception of surface color and material in three-dimensional scenes. Workshop: "Perception and performance in real, complex environments," Kyushu University, Kyushu, Japan, October, 2007.
- Maloney, L. T.** (2007), Statistical decision theory as a framework for cognition and action. Graduate Summer School: "Probabilistic models of cognition: The mathematics of mind." Institute for Pure and Applied Mathematics, University of California, Los Angeles, July, 2007.
- Maloney, L. T.** (2007), Decision making under risk, movement planning under risk. Tübinger Neurokolloquium, Eberhard-Karls-Universität, Tübingen, Germany, May, 2007

- Maloney, L. T.** (2006), Perception of surface color in three-dimensional scenes; outside the Mondrian singularity. *Invited address, Annual Meeting of the Virtual Reality Society of Japan*, Acoustical Society of Japan, Fukuoka, Kyushu University, Kyushu, Japan, December, 2006.
- Maloney, L. T.** (2006), Decision making under risk, movement planning under risk *Jacob Marschak Interdisciplinary Colloquium* University of California, Los Angeles, Los Angeles, CA, October, 2006.
- Maloney, L. T., Boyaci, H., Doerschner, K. & Snyder, J. L.** (2006), Surface color perception in three-dimensional scenes. *Color Vision Symposium, Tagung experimentell arbeitender Psychologen: TeaP2006*, Mainz, Germany, March, 2006.
- Maloney, L. T. Dean, M. & Wu, S.-W.** (2006) Mixing memory and desire: Bayesian decision theory as a framework for perception and action and an experimental test of the framework. *Workshop: Bridging the gap between sensation and motor control: from computation to behavior*, Rauischholzhausen, Germany, July, 2006.
- Maloney, L. T.** (2006) The economics of movement planning. Keynote address, *Tagung experimentell arbeitender Psychologen: TeaP2006*, Mainz, Germany, March 2006.
- Maloney, L. T., Boyaci, H., Doerschner, K. & Snyder, J. L.** (2006), Surface color perception in three-dimensional scenes. *Color Vision Symposium, Tagung experimentell arbeitender Psychologen: TeaP2006*, Mainz, Germany, March, 2006.
- Maloney, L. T., Boyaci, H. & Doerschner, K.** (2006), Representing and estimating illumination in complex, three-dimensional scenes. *Institute for Mathematics and its Applications: Workshop on Natural Images*, University of Minnesota, Minneapolis, Minnesota, March, 2006.
- Maloney, L. T. Dean, M. & Wu, S.-W.** (2006) Movement planning and speed-accuracy tradeoffs. *Workshop: Bridging the gap between sensation and motor control: from computation to behavior*, Université de Paris V, Paris, France, February, 2006.
- Maloney, L. T.** (2005), Surface color perception with spatially non-uniform illumination. keynote address, *Conference of the International Colour Vision Society*, Lyon, France, July, 2005.
- Maloney, L. T.** (2005), Speeded decision making, *AFOSR Workshop: Integrated Models of Cognitive Systems*, Saratoga Springs, New York, March, 2005.
- Maloney, L. T., Boyaci, H. & Doerschner, K.** (2005), Surface color perception as an inverse problem in biological vision, keynote address, *IS&T/SPIE Conference on Electronic Imaging; Science and Technology*, San Jose, California, January, 2005.
- Maloney, L. T.** (2002), Methods for spectrally-accurate rendering, *IEEE Visualization 2002*, Boston, Massachusetts, October, 2002.
- Maloney, L. T.** (2002), Cue combination in human observers. *Combating Uncertainty through Sensor Fusion*, Marine Biological Laboratory, Woods Hole, MA, April, 2002.
- Maloney, L. T.** (2001), Neural representations and neural transformations of color. Invited paper presented at the symposium on "Visual representations for memory and recognition", *Göttingen Neurobiology Meeting*, Universität Göttingen, June, 2001.
- Maloney, L. T.** (2001), Cues to the illuminant. Invited paper presented at the Optical Society of America *UC Irvine Color Workshop*, School of Social Sciences, University of California, Irvine, October, 2001.
- Maloney, L. T.** (2000), Illuminant cues and surface color perception. Invited paper presented at the *Workshop of the Color Group UK, "Variance & Constancy"*, Durham University, Durham, UK, September, 2000.
- Maloney, L. T.** (2000), Interpolation and segmentation of virtual contours. Invited paper presented at the *Bayesian Perception Workshop*, Katholieke Universiteit Leuven, Leuven, Belgium October, 2000.
- Maloney, L. T.** (2000), Theoretical and empirical approaches to depth cue combination. Invited paper presented at the *Bayesian Perception Workshop*, Katholieke Universiteit Leuven, Leuven, Belgium October, 2000.

RECENT CONFERENCE ABSTRACTS (2004-PRESENT)

[Authors in italics were pre- or post-doctoral students working with me]

2009

Morvan, C. & Maloney, L. T. (2009), Sub-optimal selection of initial saccade in a visual search task Paper presented at *Computational and Systems Neuroscience 2009*, Salt Lake City, Utah, Paper 400.

Gerhard, H. E., Wolfe, U. & Maloney, L. T. (2009), Dissociations between perceived and actual success in goal-directed movements. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

Maloney, L. T. & Dal Martello, M. F. (2009), Where is kinship information in the child's face? Signal detection study finds no evidence for lateralization. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

Fulvio, J. M., Schrater, P. & Maloney, L. T. (2009), Reduced sampling of dynamic trajectories does not increase extrapolation bias. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

Glaser, C. Trommershäuser, J., Mamassian, P. & Maloney, L. T. (2009), Comparison of distortions of probability information in three stochastic tasks: visual, visuo-motor and decision making under risk. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

Morvan, C. & Maloney, L. T. (2009), Sub-optimal selection of initial saccade in a visual search task. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

Zhang, H., Wu, S.-W., & Maloney, L. T. (2009), Practice does not make perfect: time allocation in sequential movements. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, submitted.

2008

Wu, S.-W., Delgado, M. R. & Maloney, L. T. (2008), The neural correlates of value and probability in decision under risk and in an equivalent motor task. Paper presented at *the Annual Meeting of the Society for Neuroscience*, November, 2008, Washington, D.C.

Maloney, L. T. & Mamassian, P. & (2008), The visual system uses different estimators for different distributions in a novel task even without feedback or the possibility of learning. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 74.

Juni, M. Z., Singh, M. & Maloney, L. T. (2008), Testing for robustness in visual localization of dot clusters without part structure. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 1014.

Fulvio, J. M., Hudson, T. E. & Maloney, L. T. (2008), Motor extrapolation of occluded spatiotemporal contours. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 618.

Wolfe, U., Gerhard, H. E. LaCasse, S. & Maloney, L. T. (2008), Estimates of performance in a visuo-motor task are accurate, but not after joint movement is constrained. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 614.

Gerhard, H. E. & Maloney, L. T. (2008), Albedo perturbation detection under illumination transformations: A dynamic analogue of lightness constancy. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 289.

Knoblauch, K. & Maloney, L. T. (2008), Classification images estimated by generalized additive models. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 344.

- Tokunaga, R., Logvinenko, S. & Maloney, L. T.* (2008), Colour dissimilarities under neutral light sources differing in intensity measured using two competing methods Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 571.
- Wu, S.-W. & Maloney, L. T.* (2008), Neural correlates of value and probability in decision under risk and in an equivalent motor task. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 545.
- Trommershäuser, J., Mamassian, P. & Maloney, L. T.* (2008), Preference in a stochastic visual cognitive task with probability information learned through experience. Paper presented at the Annual Meeting of the Vision Sciences Society, Naples, Florida, Abstract: *Journal of Vision*, **8(6)**, 469.
- Wu, S.-W. & Maloney, L. T.* (2008), Neural correlates of value and probability in decision under risk and in an equivalent motor task. Paper presented at *Computational and Systems Neuroscience 2008*, Salt Lake City, Utah.
- 2007**
- Wu, S.-W. & Maloney, L. T.* (2007), Decision making under risk compared to an equivalent motor task. Annual Conference of the Neuroeconomics Society, Hull, Massachusetts, September, 2007.
- Fulvio, J. M., Singh, M. & Maloney, L. T.* (2007), Location and orientation judgments within the Poggendorff configuration are inconsistent. Annual Workshop on Object Perception, Attention and Memory (OPAM), Long Beach, CA, November, 2007, Abstract: *Visual Cognition* (Object Perception, Attention, and Memory (OPAM) 2006 Conference Report), *15(1)*, 83-87.
- Maloney, L. T. & Gerhard, H. E.** (2007), Detecting illumination changes in three-dimensional scenes. Meeting of the *International Society of Psychophysics: Fechner Day 2007*, Tokyo, Japan, October, 2007.
- Tokunaga, R., Logvinenko, A. D. & Maloney, L. T.* (2007), Separate contributions of light intensity and chroma to perceived dissimilarity of yellow-blue surfaces under neutral light sources differing in intensity. European Conference on Visual Perception, Arezzo, Italy, August 2007. Abstract: *Perception* **36**, Abstract Supplement.
- Kitazaki, M., Kobiki, H. & Maloney, L. T.* (2007), Picture perception and scene perception : The effect of binocular disparity and motion parallax depth cues on lightness perception in three-dimensional virtual scenes. European Conference on Visual Perception, Arezzo, Italy, August 2007. Abstract: *Perception* **36**, Abstract Supplement.
- Tokunaga, R., Logvinenko, A. D. & Maloney, L. T.* (2007), Perceived dissimilarity of yellow-blue surfaces under neutral light sources differing in intensity: separate contributions of light intensity and chroma. 19th Symposium of the International Color Vision Society, Belém, Brazil, July 2007.
- Knoblauch, K. & Maloney, L. T.* (2007), MLDS: Maximum likelihood difference scaling in R. *useR! American Statistical Association Sections on Statistical Graphics and Computing*, Iowa State University, Ames, Iowa, August, 2007.
- Trommershäuser, J., Mamassian, P. & Maloney, L. T.* (2007) Human decision making in a probabilistic visual task: Testing a model based on expected utility, Paper presented at *Computational and Systems Neuroscience 2007*, Salt Lake City, Utah, paper 186.
- Schultz, S. & Maloney, L. T.* (2007), Influence of luminance and saturation on protanopic hue scaling. *Tagung experimentell arbeitender Psychologen: TeaP2007*, Trier, Germany, March 2007.
- Hudson, T. E., Wolfe, U. & Maloney, L. T.* (2007) The covariance structure of speeded reaching movements. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 171.
- Wolfe, U., Gray, J. & Maloney, L. T.* (2007), Constraint-induced learning in a visually-guided motor task. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 169.

Wu, S.-W., Dal Martello, M. F. & **Maloney, L. T.** (2007), Performance in rapid sequential visually-guided pointing movements. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 167.

Maloney, L. T., Doerschner, K. & Brainard, D. H. (2007), Color constancy in 3D scenes: contrasting illumination-estimation and heuristic models. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 458.

Gerhard, H. E., Khan, R. & **Maloney, L. T.** (2007), Relational color constancy in the absence of ratio constancy. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 459.

Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2007), Breakdown of contour interpolation: Testing a multiple-contours hypothesis. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 111.

Fleming, R. W., Jäkel, F. & **Maloney, L. T.** (2007), Visual perception of refractive materials. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 561.

Ho, Y.-H., Landy, M. S. & **Maloney, L. T.** (2007), The appearance of glossy, bumpy surfaces. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **7(9)**, 450.

2006

Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2006), Testing the relatability hypothesis: Inducer offset appears to be more critical than turning angle for visual interpolation. Annual Workshop on Object Perception, Attention and Memory (OPAM), Houston, TX, November, 2006, Abstract: *Visual Cognition*, "Object Perception, Attention, and Memory (OPAM) 2006 Conference Report", **15(1)**, 83-87.

Hudson, T. E., **Maloney, L. T.** & Landy, M. S. & (2006) Optimality of reach timing under risk. Paper presented at the Annual Meeting of the Society for Neuroscience, Atlanta, Georgia, November, 2006, accepted.

Maloney, L. T., Ho, Y.-X. & Landy, M. S. (2006), Failures of visual constancies due to erroneous cue recruitment? *Symposium on Associative Learning in Perception*. European Conference on Visual Perception, Sankt Peterburg, Russia, August 2006. Abstract: *Perception* **35**, Abstract Supplement.

Wu, S.-W., Dal Martello, M. F. & **Maloney, L. T.** (2006) trajectory planning in sequential pointing movements *Workshop: Bridging the gap between sensation and motor control: from computation to behavior*, Rauschholzhausen, Germany, July, 2006.

Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2006), Consistency of location and gradient judgments of visually-interpolated contours. *5th IEEE Computer Society Workshop on Perceptual Organization in Computer Vision*. Abstract: *Computer Vision and Pattern Recognition, Proceedings '06*, accepted.

Maloney, L. T., Wu, S.-W. & Dal Martello, M. F. (2006) Movement planning under risk differs from decision making under risk in how subjects make use of probability information Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 928a.

Doerschner, K. & **Maloney, L. T.** (2006) Lightness perception in scenes with motion-based shading cues to the spatial distribution of illumination. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 711a.

Singh, M., Cohen, E. H., & **Maloney, L. T.** (2006) The influence of perceptual segmentation on the perceived orientation of dot clusters. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 761a.

Ho, Y.-H., **Maloney, L. T.** & Landy, M. S., (2006) The effect of viewpoint on visually perceived surface roughness in binocularly-viewed scenes. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 262a.

Gerhard, H. E. & **Maloney, L. T.** (2006) Can semantic information prime surface color judgments? Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 249a.

- Hudson, T. E., Landy, M. S. & **Maloney, L. T.** (2006) Optimality of reach timing under risk. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 925a.
- Rhodes, G., **Maloney, L. T.**, Turner, J. & Ewing, L. (2006) Is the average face special? Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 283a.
- Wu, S.-W., Dean, M. & **Maloney, L. T.** (2006) Humans trade off speed and accuracy so as to nearly maximize expected gain in planning movements to targets that rapidly decrease in reward across time. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 927a.
- Trommershäuser, J., Landy, M. S. & **Maloney, L. T.** (2006) Sensori-motor choices based on a rapid judgment of expected gain, Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 923a.
- Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2006) The human visual spline: Interpolation contours between reliable inducers follow quintic polynomials. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 100a.
- Dal Martello, M. F. & **Maloney, L. T.** (2006) Where are kin recognition cues in the face? Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision*, **6**, 7a.
- Schultz, S. & **Maloney, L. T.** (2006), Farbkonstanz: Einfluss chromatischer Adaptation auf Hue Scalings. *Tagung experimentell arbeitender Psychologen: TeaP2006*, Mainz, Germany, March 2006.
- Trommershäuser, J., Landy, M. S. & **Maloney, L. T.** (2006) Sensori-motor choices based on a rapid judgment of expected gain, *Tagung experimentell arbeitender Psychologen: TeaP2006*, Mainz, Germany, March 2006.
- Schultz, S., Doerschner, K. & **Maloney, L. T.** (2006), Color constancy and hue scaling. *Tübinger Wahrnehmungskonferenz: TWK2006*, Tübingen, Germany, March 2006.

2005

- Fulvio, J. M., Singh, M. & **Maloney, L. T.** (2005), The chromatic and achromatic components of perceived transparency. Annual Workshop on Object Perception, Attention and Memory (OPAM), Toronto, Canada, November, 2005.
- Snyder, J. L., Mulligan, J. B. & **Maloney, L. T.** (2005), A reaction time model of self-terminating configural search in complex displays. European Conference on Visual Perception, A Coruña, Spain, August 2005. Abstract: *Perception* (Supplement) , **34**, 150.
- Maloney, L. T.** , Wu, S.-W. & Dal Martello, M. F. (2005), Planning sequences of arm-hand movements to maximize expected gain. European Conference on Visual Perception, A Coruña, Spain, August 2005. Abstract: *Perception* (Supplement), **34**, 16.
- Doerschner, K., Boyaci, H. & **Maloney, L. T.** (2005), Spherical harmonic representation of illumination in complex, 3D scenes. European Conference on Visual Perception, A Coruña, Spain, August 2005. Abstract: *Perception* (Supplement), **34**, 112.
- Logvinenko, A., Petrini, K. & **Maloney, L. T.** (2005), Multidimensional scaling analysis of Adelson's snake lightness illusion. European Conference on Visual Perception, A Coruña, Spain, August 2005. Abstract: *Perception* (Supplement), **34**, 23.
- Cuijpers, R. H., Landy, M. S., **Maloney, L. T.**, Brenner, E., Smeets, J. B. J. (2005), Biomechanical costs and grip planning: a model. European Conference on Visual Perception, A Coruña, Spain, August 2005. Abstract: *Perception* (Supplement), **34**, 246.
- Maloney, L. T.**, Boyaci, H. & Doerschner, K. (2005), Surface color perception in three-dimensional scenes with non-uniform spatial and spectral distribution of illumination. *Computational and Systems Neuroscience 2005*, Salt Lake City, Utah, March, 2005.

- Trommershäuser, J., Maloney, L. T. & Landy, M. S. (2005), Decision making and movement planning under risk, Computational and Systems Neuroscience 2005, Snowbird, Utah, March, 2005.*
- Wu, S.-W., Maloney, L. T. & Dal Martello, M. F. (2005), Movement planning in a rapid 'foraging' task: Maximization of expected gain in strategy selection? Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: Journal of Vision, 5 (8), 125a.*
- Hudson, T. E., Landy, M. S. & Maloney, L. T. (2005), Planning movements with partial knowledge of target location encoded as a spatial prior. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: Journal of Vision, 5 (8), 624a.*
- Fulvio, J. M., Singh, M. & Maloney, L. T. (2005), Combining achromatic and chromatic cues to transparency. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: Journal of Vision, 5 (8), 566a.*
- Maloney, L. T., Boyaci, H & Doerschner, K., (2005),** Representing the spatial and chromatic distribution of the illuminant in scenes with multiple punctate chromatic light sources. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision, 5 (8), 786a.*
- Dal Martello, M. F., Maloney, L. T., Sahm, C., & Spillmann, L. (2005), How the past gives way to the present: Evidence for Bayesian updating with repeated presentation of ambiguous motion quartets. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: Journal of Vision, 5 (8), 661a.*
- Doerschner, K., Boyaci, H & Maloney, L. T. (2005),* Representing spatially and chromatically varying illumination using spherical harmonics in human vision. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision, 5 (8), 785a.*
- Ho, Y.-H., Landy, M. S., Maloney, L. T. (2005),* Change in illuminant direction alters perceived surface roughness. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision, 5 (8), 568a.*
- Faludi, R., Avakov, J., Maloney, L. T., Carrasco, M. (2005),* Covert transient attention affects motor response trajectories. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, Abstract: *Journal of Vision, 5 (8), 166a.*

2004

- Maloney, L. T., Trommershäuser, J., Trzcinka, P. , Landy, M. S. (2004),** Movement planning and decision making under risk. European Conference on Visual Perception, Budapest, Hungary, August 2004. Abstract: *Perception (Supplement) 0496.*
- Trommershäuser, J., Mattis, J., Maloney, L. T., & Landy, M. S. (2004),* Sub-optimality in human movement planning with delayed and unpredictable onset of needed information. European Conference on Visual Perception, Budapest, Hungary, August 2004. Abstract: *Perception (Supplement), 0445.*
- Dal Martello, M. F., Maloney, L. T., Spillmann, L. & Sahm, C. (2004),* Spontaneous patterns in the perceived direction of motion in ambiguous motion quartets: effect of perception or judgment? European Conference on Visual Perception, Budapest, Hungary, August 2004. Abstract: *Perception (Supplement), 0501.*
- Maloney, L. T., Trommershäuser, J. Trzcinka, P. & Landy, M. S. (2004),** Questions without words: Movement planning under implicit and explicit uncertainty. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision, 4 (8), 414a.*
- Boyaci, H. & Maloney, L. T. (2004),* The effect of an illuminant direction cue based on cast shadows on lightness perception in three-dimensional scenes. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision, 4 (8), 121a.*
- Faludi, R., Maloney, L. T. & Carrasco, M. (2004),* Effect of visual performance fields on motor responses. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision, 4 (8), 447a.*

- Snyder, J. L., Mulligan, J. B. & **Maloney, L. T.** (2004), Horizontal binocular disparity facilitates visual search in stereoscopically-viewed displays. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 669a.
- Dal Martello, M. F., **Maloney, L. T.**, Spillmann, L. & *Sahm, C.* (2004), The effect of past trials on perceived direction of motion in ambiguous motion quartets: temporal pattern detection, not priming. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 558a.
- Doerschner, K., Boyaci, H. & Maloney, L. T.* (2004), Estimating the glossiness transfer function induced by changing illumination and testing its transitivity. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 322a.
- Wu, S. W., Trommershäuser, J., Maloney, L. T., & Landy, M. S.* (2004), Planning rapid movements to maximize gain in scenes with multiple regions carrying reward or penalty. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 413a.
- Trommershäuser, J., Gepshtein, S., Maloney, L. T., Landy, M. S., & Banks, M. S.* (2004), Optimal compensation for changes in effective movement variability in planning movement under risk. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 145a.
- Landy, M. S., Goutcher, R., *Trommershäuser, J., Maloney, L. T. & Mamassian, P.* (2004), MEGaVis: Perceptual decisions in the face of explicit costs and benefits . Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, April-May 2004. Abstract: *Journal of Vision*, **4 (8)**, 39a.
- Trommershäuser, J., Gepshtein, S., Maloney, L. T., Landy, M. S., & Banks, M. S.* (2004), When visual and motor noise matters: Bewegungsplanung unter Risiko. *Symposium Multisensorik und Handlungssteuerung*. Tagung experimentell arbeitender Psychologen, April, 2004. Giessen, Germany.
- Maloney, L. T., Boyaci, H., & Hersh, S.** (2002), Human observers correct perceived lightness for perceived orientation. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, Florida, May 2002. Abstract: *Journal of Vision*, **2 (7)**, 309a.

RECENT TALKS (2004-PRESENT)

Lab. de Psych. de la Perception
CNRS & Université Paris V
Paris, France
March 30, 2009

Center for Physics and Biology
Rockefeller University
New York, NY
February 10, 2009

Institute for Frontier Areas
in Psychology
Freiburg, Germany
January 29, 2009

Department of Psychology
University College, London
London, England UK
January 22, 2009

Department of Experimental Psychology
Oxford University
Oxford, England UK
January 20, 2009

Department of Engineering
University of Cambridge
Cambridge, England UK
January 19, 2009

Department of Psychology
Cardiff University
Cardiff, Wales, UK
January 15, 2009

Department of Psychology
Bilkent University
Ankara, Turkey
December 3, 2008

Department of Psychology
Justus-Liebig-Universität
Giessen, Germany
November 12, 2008

Vision Seminar
MIT
Cambridge, MA
October 24, 2008

Visual Attention Lab
Harvard Medical
Cambridge, MA
October 23, 2008

Bernstein Center
Humboldt Universität
Berlin, Germany
September 3, 2008

Department of Psychology
Università di Padova
Padova, Italy
June, 2008

Sloan-Swartz Center for Theoretical Neurobiology
Salk Institute
San Diego, CA
December, 2007

Max Planck Institute for Biological
Cybernetics
Tübingen, Germany
May, 2007

Perceptual Science Program
Rutgers University
New Brunswick, NJ USA
May, 2007

Institute for Math. Behavioral Sciences
University of California, Irvine
Irvine, CA
October, 2006

Department of Psychology
McMaster University
Hamilton, Ontario, Canada
September, 2006

Department of Psychology
Harvard University
Cambridge, MA
May, 2006

Lab. de Psych. de la Perception
CNRS & Université Paris V
Paris, France
February, 2006

Center for Cognitive Science
Università Vita Salute San Raffaele
Milano, Italy
November, 2004

Department of Psychology
Yale University
New Haven, CT
September, 2004

Max Planck Institute for Biological
Cybernetics
Tübingen, Germany
June, 2004

Department of Psychology
Justus-Liebig-Universität
Giessen, Germany
June, 2004

Department of Physiology
Oxford University
Oxford, England UK
May, 2004

Department of Psychology
Glasgow University
Glasgow, Scotland UK
May, 2004

Department of Physiology
Newcastle University
Newcastle, England UK
May, 2004

Department of Psychology
University College, London
London, England UK
May, 2004

Institute of Neurology
University College, London
London, England UK
May, 2004

Cognitive and Neural Systems
Boston University
Boston, MA USA
April, 2004

Department of Psychology
University of Texas, Austin
Austin, TX USA
April, 2004

Department of Psychology
Queens University
Kingston, Ontario Canada
January, 2004