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### Education:

University of Pennsylvania, 1985-87, Ph.D. Computer Science.  
University of Pennsylvania, 1983-85, M.S.E. Computer Science.  
University of Pennsylvania, 1979-83, B.A. Mathematics.

### Selected Fellowships and Awards:

- Margaret and Herman Sokol Faculty Award in the Sciences, New York University, 2006.
- Troland Research Award in psychology, National Academy of Sciences, 2002.
- Alfred P. Sloan Foundation Research Fellowship in neuroscience, 1994-1995.
- David Marr Prize in computer vision, 1987.

### Patents:

- Fleet DJ, Heeger DJ, Cass T, Hecht DL, Method for embedding signals in a color image, US Patent #5,949,055, issued Sep 7, 1999.
- Heeger AJ, Langen J, Heeger DJ, Smart polymer image processor, US Patent #5,804,836, issued Sep 8, 1998.
- Heeger DJ & Jepson AD, Method and apparatus for image processing to obtain three dimensional motion and depth, US Patent #4,980,762, issued Dec 25, 1990.

### Selected Journal Publications (out of a total of 88, available at <http://www.cns.nyu.edu/heegerlab/>):

- Freeman J, Brouwer GJ, Heeger DJ, Merriam EP, Orientation decoding depends on maps, not columns, *J Neurosci*, **31**:4792-4804, 2011.
- Herrmann K, Montaser-Kouhsari L, Carrasco M, Heeger DJ, When size matters: attention affects performance by contrast or response gain, *Nat Neurosci*, **13**:1554-1559, 2010.
- Dinstein I, Thomas C, Humpreys K, Minshew N, Behrmann M, Heeger DJ, Normal movement-selectivity in autism, *Neuron*, **66**:461-469, 2010.
- Hasson U, Malach R, Heeger DJ, Reliability of cortical activity during natural stimulation, *Trends Cogn Sci*, **14**:40-48, 2010
- Reynolds JH & Heeger DJ, The normalization model of attention, *Neuron*, **61**:168-185, 2009.
- Donner TH, Sagi D, Bonneh YS, Heeger DJ, Opposite neural signatures of motion-induced blindness in human dorsal and ventral visual cortex, *J Neurosci*, **28**:10298-10310, 2008.
- Dinstein I, Thomas C, Behrmann M, Heeger DJ, A mirror up to nature, *Curr Biol*, **18**:R13-18, 2008.
- Gardner JL, Merriam EP, Movshon JA, Heeger DJ, Maps of visual space in human occipital cortex are retinotopic, not spatiotopic, *J Neurosci*, **28**:3988-3999, 2008.
- Hasson U, Yang E, Vallines I, Heeger DJ, Rubin N, A hierarchy of temporal receptive windows in human cortex, *J Neurosci*, **28**:2539-2550, 2008.
- Lee SH, Blake R, Heeger DJ, Hierarchy of cortical responses underlying binocular rivalry, *Nat Neurosci*, **10**:1048-1054, 2007.
- Larsson J & Heeger DJ, Two retinotopic areas in human lateral occipital cortex, *J Neurosci*, **26**:13128-13142, 2006.
- Schluppeck D, Curtis CE, Glimcher PW, & Heeger DJ, Sustained activity in topographic areas of human posterior parietal cortex during memory-guided saccades, *J Neurosci*, **5**:962-881, 2006.
- Silver MA, Ress D, & Heeger DJ, Topographic maps of visual spatial attention in human parietal cortex, *J Neurophysiol*, **94**:1358-1371, 2005.
- Schluppeck D, Glimcher PW, & Heeger DJ, Topographic organization for delayed saccades in human posterior parietal cortex, *J Neurophysiol*, **94**:1372-1384, 2005.
- Lee SH, Blake R, & Heeger DJ, Travelling waves of activity in primary visual cortex during binocular rivalry, *Nat Neurosci*, **8**:22-23, 2005.
- Ress D & Heeger DJ, Neuronal correlates of perception in early visual cortex, *Nat Neurosci*, **6**:414-420,

2003.

- Carandini M, Heeger DJ, & Senn W, A synaptic explanation of suppression in visual cortex, *J Neurosci*, **22**:10053-10065, 2002.
- Huk AC, Dougherty RF, & Heeger DJ, Retinotopy and functional subdivision of human areas MT and MST, *J Neurosci*, **22**:7195-7205, 2002.
- Neri P & Heeger DJ, Spatiotemporal mechanisms for detecting and identifying image features in human vision, *Nat Neurosci*, **5**:812-816, 2002.
- Heeger DJ & Ress D, What does fMRI tell us about neuronal activity?, *Nat Rev Neurosci*, **3**:142-151, 2002.
- Huk AC & Heeger DJ, Pattern-motion responses in human visual cortex, *Nat Neurosci*, **5**:72-75, 2002.
- Huk AC, Ress D, & Heeger DJ, Neuronal basis of the motion aftereffect reconsidered, *Neuron*, **32**:161-172, 2001.
- Simoncelli EP & Heeger DJ, Representing retinal image speed in visual cortex, *Nat Neurosci*, **5**:461-462, 2001.
- Polonsky A, Blake R, Braun J, & Heeger DJ, Neuronal activity in human primary visual cortex correlates with perception during binocular rivalry, *Nat Neurosci*, **3**:1153-1159, 2000.
- Ress D, Backus BT, & Heeger DJ. Activity in primary visual cortex predicts performance in a visual detection task, *Nat Neurosci*, **3**:940-945, 2000.
- Heeger DJ, Huk AC, Geisler WS, & Albrecht DG. Spikes vs BOLD: What does neuroimaging tell us about neuronal activity? *Nat Neurosci*, **3**:631-633, 2000.
- Huk AC & Heeger DJ, Task-related modulation of visual cortex, *J Neurophysiol*, **83**:3525-3536, 2000.
- Nestares O & Heeger DJ, Robust multiresolution alignment of MRI brain volumes, *Magn Res Med*, **43**:705-715, 2000.
- Heeger DJ, Boynton GM, Demb JB, Seidemann E, & Newsome WT, Motion opponency in visual cortex, *J Neurosci*, **19**:7162-7174, 1999.
- Gandhi SP, Heeger DJ, & Boynton GM, Spatial attention in human primary visual cortex, *Proc. Nat'l Acad. Sci. USA*, **96**:3314-3319, 1999.
- Boynton GM, Demb JB, Glover GH, & Heeger DJ, Neural basis of contrast discrimination, *Vis Res*, **39**:257-269, 1999.
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- Simoncelli EP & Heeger DJ, A model of neuronal responses in visual area MT, *Vis Res*, **38**:743-761, 1998.
- Black M, Sapiro G, Marimont D, & Heeger DJ, Robust anisotropic diffusion, *IEEE Trans Image Proc*, **7**:421-432, 1998.
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- Heeger DJ, The representation of visual stimuli in primary visual cortex, *Curr Dir Psych Sci*, **3**:159-163, 1994.
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