

JEREMY FREEMAN

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Education

- **Center for Neural Science at New York University** *2008–present*
Candidate for Ph.D in Neural Science, expected graduation in 2012.
Advisors: Eero P. Simoncelli, David J. Heeger, Michael S. Landy, and Denis G. Pelli.
Research: Ventral stream, natural image statistics, object recognition, texture, crowding, population coding, eye movements, fMRI, psychophysics, computational modeling.
Coursework: Cellular/molecular neuroscience, sensory/motor systems, linear algebra, signal processing, probability, statistics, image processing.
- **CIFAR program on Neural Computation and Adaptive Perception** *Summer 2009*
Summer school on learning and vision in biology and engineering.
Coursework: Lectures, tutorials, and collaborative programming projects on topics in machine learning and vision. Organized by Geoffrey Hinton.
- **Swarthmore College** *2004–2008*
B.A. in Neuroscience with High Honors, GPA: 3.98
Coursework: mathematics/statistics, neurobiology, and cognitive/perceptual psychology.

Pre-graduate research experience

- **HIMI Summer Research Fellowship** *Summer 2007*
Awarded by Swarthmore College, hosted by the Center for Neural Science at New York University.
Advisor: David J. Heeger.
Project: Inter-area correlations in the visual pathway reflect feature integration.
- **NSF Research Experience for Undergraduates in Neural Science** *Summer 2006*
Awarded and hosted by the Center for Neural Science at New York University.
Advisor: Denis G. Pelli.
Project: Attention can relieve crowding.

Honors and awards

Vision Sciences Society Student Travel Award	<i>2010</i>
NSF Graduate Student Fellowship	<i>2008-2011</i>
Hans Wallach Award (outstanding Swarthmore graduate)	<i>2008</i>
Flack Achievement Award (outstanding Swarthmore student)	<i>2007</i>
Goldwater Fellowship	<i>2007</i>

Journal articles

- **Freeman, J.** , Chakravarthi, R. , & Pelli, D.G. (2010). Crowding combines. *In preparation*.
- **Freeman, J.** , Donner, T.H. , & Heeger, D.J. (2010). Inter-area correlations in the ventral visual pathway reflect crowding. *Under review*.
- **Freeman, J.** & Simoncelli, E.P. (2010). Metamers of the ventral stream. *In preparation*.
- **Freeman, J.** & Pelli, D.G. (2007). An escape from crowding. *Journal of Vision*. 7(2):1–14.
- Pelli, D.G. , Tillman, K.A. , **Freeman, J.** , Su, M. , Berger, T.D. , & Majaj, N.J. (2007). Crowding and eccentricity determine reading rate. *Journal of Vision*. 7(2):1–36.

Conference abstracts

- **Freeman, J.** & Simoncelli, E.P. (2010). Metamers of the ventral stream. In *Computational and Systems Neuroscience (CoSyNe) Abstracts*. *Talk*.
- **Freeman, J.** & Simoncelli, E.P. (2010). Crowding and metamerism in the ventral stream. In *Vision Sciences Society, accepted for presentation May 2010*. *Talk*.
- Ganguli, D. , **Freeman, J.** , Rajashaker, U. , & Simoncelli, E.P. (2010). Orientation statistics at fixation. In *Vision Sciences Society, accepted for presentation May 2010*. *Poster*.
- Pelli, D.G. , **Freeman, J.** , & Chakravarthi, R. (2010). Crowding combines. In *Vision Sciences Society, accepted for presentation May 2010*. *Poster*.
- Wang, H. , **Freeman, J.** , Merriam, E.P. , Hasson, U. , & Heeger, D.J. (2010). Temporal scramble disrupts eye movements to naturalistic videos. In *Vision Sciences Society, accepted for presentation May 2010*. *Poster*.
- **Freeman, J.** , Hallum, L.E. , Landy, M.S. , & Heeger, D.J. (2009). Hierarchical representation of naturalistic texture in cortex. In *Society for Neuroscience Abstracts*, page 756.6. *Poster*.
- **Freeman, J.** , Donner, T.H. , & Heeger, D.J. (2008). Inter-area correlations in the human ventral visual pathway reflect feature integration. In *Vision Sciences Society Abstracts*, volume 8(6), pages 42a. *Poster*.
- **Freeman, J.** , Donner, T.H. , & Heeger, D.J. (2008). Interactions between human inferotemporal and early visual areas reflect feature integration. In *Society for Neuroscience Abstracts*, page 316.8. *Talk*.
- **Freeman, J.** & Pelli, D.G. (2007). Attention can relieve crowding. In *Vision Sciences Society Abstracts*, volume 7(9), pages 330a. *Talk*.
- Huk, A. , **Freeman, J.** , & Durgin, F. (2007). Motion capture is motion integration. In *Vision Sciences Society Abstracts*, volume 7(9), pages 397a. *Poster*.
- Durgin, F.H. , **Freeman, J.** , & Huk, A. (2006). Reciprocal interaction between high and low frequencies in the perception of motion. In *Vision Sciences Society Abstracts*, volume 6(6), pages 574a. *Poster*.

Invited Talks

- "Linking statistical texture models to population coding in the ventral stream." Vision Sciences Society Symposium: Representation in the Visual System by Summary Statistics. Organizer: Ruth Rosenholtz. To be held *May 7, 2010*.
- "Linking statistical texture models to population coding in the ventral stream." Weill Cornell Medical College. Host: Jonathan D. Victor. *January 11, 2010*.

Teaching experience

Mathematical tools for neuroscience, teaching assistant for Laurence Maloney

2009

Professional activities

Reviewer for *Journal of Vision*, *PLoS One*
Member of Vision Sciences Society
Member of Society for Neuroscience
Member of Phi Beta Kappa
Member of Sigma Xi