

Curriculum Vitae

Michele Ann Cox

PhD Candidate

Department of Psychology

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Education

B.S. Biological Sciences, University of Maryland, College Park, MD 2010

Awards & Honors

Gordon Research Seminar Travel Award 2016

The Pat Burns Memorial Graduate Student Research Award 2016

NSF Graduate Research Fellowship 2012-2015

Tom Slick Research Award from the Mind Science Foundation 2013-2014

VSS Student Travel Award 2012

Fine Science Tools, Inc. Travel Award 2011

Vanderbilt Scientific Development Award 2011

NIH Postbaccalaureate Intramural Research Training Award 2010-2011

Publications

Cox MA, Dougherty K, Adams GK, Reavis EA, Leopold DA & Maier A.

(*Submitted*). Attention first suppresses then enhances spiking responses in visual cortex.

Kienitz R, Maier A, Cox MA, Saunders RC, Schmiedt JT, Leopold DA & Schmid MC (*Submitted*). Rhythmic perception-related activation of V4 neurons depends on input from primary visual cortex.

Cox MA & Maier A. (2015). Serial versus parallel processing in mid-level vision: filling-in the details of spatial interpolation. *Neuroscience of Consciousness* 2015 (1): niv007

Dougherty K, Cox MA, Ninomiya T, Leopold DA & Maier A. (2015). Ongoing Alpha Activity in V1 Regulates Visually Driven Spiking Responses. *Cerebral Cortex*, bhv304.

Cox MA*, Lowe KA*, Blake R & Maier A. (2014). Sustained perceptual invisibility of solid shapes following contour adaptation to partial outlines. *Consciousness and Cognition*, 26, 37-50. *Authors contributed equally.

Maier A, Cox MA, Dougherty K, Moore B & Leopold DA. (2014). Anisotropy of ongoing neural activity in primate visual cortex. *Eye and Brain*, 2014:6 (Suppl 1) 113–120.

Cox MA, Schmid MC, Peters AJ, Saunders RC, Leopold DA & Maier A. (2013). Receptive field focus of visual area V4 neurons determines responses to illusory surfaces. *Proceedings of the National Academy of Sciences*, 110(42), 17095-17100.

Invited Talks

Cox MA, Dougherty K & Maier A. "Interocular suppression in the input layers of V1." Talk presented at the *Neurobiology of Cognition Gordon Research Seminar*, July 2016.

Cox MA, Dougherty K, Leopold DA & Maier A. "Covert attentional orienting first suppresses then enhances spiking responses across all cortical layers in primary visual cortex." Data Blitz talk presented at the *University of Rochester Center for Visual Science* symposium, June 2016.

Kogo N, Machilsen B, Froyen V & Cox MA. "Are there donuts in vision? Neural computation of global image configuration by a circular receptive field." Speaker and organizing member of workshop at the annual meeting of the *Vision Sciences Society*, May 2016

Conference Abstracts & Presentations

Cox MA, Dougherty K & Maier A. "Interocular suppression across the layers of V1." Poster at the *Society for Neuroscience* annual meeting, November 2016.

Dougherty K, Cox MA, & Maier A. "Interocular gain control in primate LGN." Poster at the *Society for Neuroscience* annual meeting, November 2016.

Cox MA, Dougherty K & Maier A. "Interocular suppression in the input layers of V1." Poster presented at the *Neurobiology of Cognition Gordon Research Conference*, July 2016.

Dougherty K, Cox MA, & Maier A. "Binocular modulation of LGN responses in the awake primate." Poster presented at the *Neurobiology of Cognition Gordon Research Conference*, July 2016.

Cox MA, Dougherty K, Leopold DA & Maier A. "Covert attentional orienting first suppresses then enhances spiking responses across all cortical layers in primary visual cortex." Poster presented at the *University of Rochester Center for Visual Science* symposium, June 2016.

Dougherty, K., Cox, M.A., Leopold, D.A. & Maier, A. "Visual spiking responses in V1 couple to alpha fluctuations in deep layers." Talk presented at the annual meeting of the *Vision Sciences Society*, May 2015.

Cox MA, Leopold DA & Maier A. "Sensory stimulation and attentional allocation evoke opposing patterns of columnar activation in primary visual cortex." Talk presented at the *Society for Neuroscience* annual meeting, November 2014.

Dougherty K, Cox MA, Leopold DA & Maier A. "Spiking responses in V1 are coupled to the phase of infragranular alpha LFP." Poster presented at the *Society for Neuroscience* annual meeting, November 2014.

Kienitz R, Cox MA, Schmiedt JT, Saunders RC, Leopold DA, Maier A & Schmid MC. "Rhythmic neural activity during perceptual grouping in visual area V4 and its dependence on area V1 input." Poster presented at the *Society for Neuroscience* annual meeting, November 2014.

Moore B, Cox MA, Dougherty K, Young MS & Maier A. "Resting state correlations in visual cortex reflect fluctuations of cortical arousal." Poster presented at the *Society for Neuroscience* annual meeting, November 2014.

Cox MA, Schmid MC, Peters AJ, Saunders RC, Leopold DA & Maier A. "Unexpected spatial sensitivity of neuronal response to illusory figures in area V4." Talk presented at the annual meeting of the *Vision Sciences Society*, May 2014.

Kienitz R, Cox MA, Schmiedt JT, Saunders RC, Leopold DA, Maier A & Schmid MC. "Perceptual grouping and theta oscillations in visual area V4." Poster presented at *German Primate Neurobiology Conference*, 2014.

Cox MA, Moore B, Dougherty K, Young MS & Maier A. "LFP coherence as a function of laminar depth and lateral distances in macaque visual cortex."

Poster presented at the *Society for Neuroscience* annual meeting, November 2013.

Moore B, Cox MA, Dougherty K, Young MS & Maier A. "Laminar profile of state-dependent visually evoked responses in primate visual cortex" Poster presented at the *Society for Neuroscience* annual meeting, November 2013.

Dougherty K, Cox MA, Leopold DA & Maier A. "Visually evoked cross-frequency coupling between deep and superficial layers of macaque V1" Poster presented at the *Society for Neuroscience* annual meeting, November 2013.

Khandaker H, Lowe K, Tauhidul L, Cox MA & Maier A. "Contour Adaptation Does Not Survive Prolonged Absence of Visual Stimulation." 3rd Annual NIH ENDURE Meeting, November 2013.

Cox MA, Schmid MC, Peters AJ, Saunders RC, Leopold DA & Maier A. "Neuronal representation of subjective shapes in primate area V4." Poster presented at the annual meeting of the *Vision Sciences Society*, May 2012.

Cox MA, Schmid MC, Peters AJ, Saunders RC, Leopold DA & Maier A. "Single neuron and LFP responses to subjective shapes in area V4." Poster presented at the *Society for Neuroscience* annual meeting, November 2011.

Maier A, Cox MA, Reavis, EA, Adams, GK & Leopold DA. "Perceptual awareness and selective attention differentially modulate neuronal responses in primary visual cortex." Poster presented at the *Society for Neuroscience* annual meeting, November 2011.

Cox MA, Maier A, Schmid MC, Peters AJ, Smith K, Saunders RC, Mitz AR & Leopold DA. "Neural Correlates of Illusory Shape Perception in Primate Visual Cortex." Poster presented at the *Association for Psychological Science Convention*, May 2011.

Teaching Experience

Teaching Assistant, Vanderbilt University	Spring 2015-Spring 2016
Volunteer Scientist in the Classroom Partnership	Spring 2013

Outreach

Science Fair Judge, STEM Preparatory Academy 2015-
Volunteer, Tennessee Women in Science (TWISTER) Conference 2014-