

**Anna Kosovicheva**  
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## EDUCATION

- 2015      University of California, Berkeley, Ph.D., Psychology  
            Cognition, Brain, and Behavior Program  
            Advisor: Dr. David Whitney  
            Dissertation: *The Effects of Motion on Position Representations for Perception and Action*
- 2009      University of California, Berkeley, B.A., Psychology, Highest Honors

## PROFESSIONAL APPOINTMENTS

- 2015 -     Postdoctoral Researcher, Translational Vision Lab  
            PI: Dr. Peter Bex  
            Psychology Department, Northeastern University, Boston, MA

## RESEARCH INTERESTS

Visual perception: localization, eye movements, spatial and binocular vision, translational vision science, strabismus, amblyopia

## GRANTS AND FELLOWSHIPS

- 2018 - 2021    Ruth L. Kirschstein Postdoctoral Individual National Research Service Award (NRSA)  
                    “Oculomotor deficits and plasticity across gaze posture in strabismus”  
                    National Institutes of Health, F32 EY028814
- 2011 - 2014    Graduate Research Fellowship  
                    National Science Foundation (NSF-GRFP)

## AWARDS AND HONORS

- 2017            Travel Award, ARVO Meeting, National Eye Institute
- 2015            Travel Award, Norman Henry Anderson Fund, Psychology Department, UC Berkeley
- 2013, 2014     Graduate Division Travel Grant, UC Berkeley
- 2012            Abigail Reynolds Hodgen Publication Fund, Social Sciences Division, UC Berkeley
- 2009            Highest Distinction in General Scholarship, UC Berkeley
- 2009            Highest Honors in Psychology, UC Berkeley
- 2008            Katherine Craig Swan Undergraduate Research Award, UC Berkeley

## PUBLICATIONS

**Published Papers** (underlined names denote students mentored):

- Vera-Diaz, F. A., Bex, P. J., Ferreira, A., & **Kosovicheva, A.** (2018). Binocular temporal visual processing in myopia. *Journal of Vision*, 18(11), 1-12.
- Manassi, M., Liberman, A., **Kosovicheva, A.**, Zhang, K., & Whitney, D. (2018). Serial dependence in position occurs at the time of perception. *Psychonomic Bulletin & Review*, 1-9.
- Chen, Z.\*, **Kosovicheva, A.\***, Wolfe, B. A., Cavanagh, P., Gorea, A., & Whitney, D. (2018). Unifying visual space across the left and right hemifields. *Psychological Science*, 29(3), 356 – 369. (\*co-first authors)
- Kosovicheva, A.**, & Whitney, D. (2017). Stable individual signatures in object localization. *Current Biology*, 27(14), R700-R701.
- Wolfe, B., Fridman, L., **Kosovicheva, A.**, Seppelt, B., Mehler, B., Reimer, B. (2017). Perceiving the roadway in the blink of an eye – Rapid perception of the road environment and prediction of events. *Conference Proceedings, Driving Assessment 2017*.
- Yamanashi Leib, A., **Kosovicheva, A.**, & Whitney, D. (2016). Fast ensemble representations for abstract visual impressions. *Nature Communications*, 7, 13186.
- Wolfe, B., Dobres, J., **Kosovicheva, A.**, Rosenholtz, R., & Reimer, B. (2016). Age-related differences in the legibility of degraded text. *Cognitive Research: Principles and Implications*, 1(1), 22.
- Wolfe, B. A., **Kosovicheva, A. A.**, Yamanashi Leib, A., Wood, K., & Whitney, D. (2015). Foveal input is not required for perception of crowd facial expression. *Journal of Vision*, 15(4), 1-13.
- Kosovicheva, A. A.**, Wolfe, B. A., & Whitney, D. (2014). Visual motion shifts saccade targets. *Attention, Perception, & Psychophysics*, 76(6), 1778-1788.
- Kosovicheva, A. A.**, Sheremata, S. L., Rokem, A., Landau, A. N. & Silver, M. A. (2012). Cholinergic enhancement reduces orientation-specific surround suppression but not visual crowding. *Frontiers in Behavioral Neuroscience*, 6(61), 1-11.
- Kosovicheva, A. A.**, Maus, G. W., Anstis, S. Cavanagh, P., Tse, P. U., & Whitney, D. (2012). The motion-induced shift in the perceived location of a grating also shifts its aftereffect. *Journal of Vision*, 12(8), 1-14.
- Kosovicheva, A. A.**, Fortenbaugh, F. C., & Robertson, L. C. (2010). Where does attention go when it moves?: Spatial properties and locus of the attentional repulsion effect. *Journal of Vision*, 10(12), 1–13.

## Manuscripts Submitted & In Revision

- Kosovicheva, A.**, Ferreira, A., Vera-Diaz, F. A., & Bex, P. J. (In revision). Effects of temporal frequency on binocular deficits in amblyopia. *Vision Research*.
- Wolfe, B., Sawyer, B. D., **Kosovicheva, A.**, Reimer, B., & Rosenholtz, R. (In revision). Cognitive load vs. eyes on the road: Better to multitask than to look away. *Attention, Perception, & Psychophysics*.
- Wolfe, B. A., Fridman, L. **Kosovicheva, A.**, Seppelt, B., Mehler, B., Reimer, B., Rosenholtz, R. (Under review). Predicting Road Events from Brief Views of Driving Video. *Journal of Vision*.

## Manuscripts in Preparation:

**Kosovicheva, A.**, Wolfe, B. A., & Whitney, D. (In preparation). Position representations for action lead perception: Evidence from saccades to drifting Gabor targets.

**Kosovicheva, A.**, & Bex, P. J. (In preparation). Uncovering word processing dynamics with color and comprehension.

## SELECTED CONFERENCE PRESENTATIONS

**Kosovicheva, A.**, Hawladar, O., Bex, P. J. (2018). Localization errors following saccadic adaptation to a dichoptic step. *Poster presented at the Vision Sciences Society (VSS) Annual Meeting.*

Vera-Diaz, F. A., **Kosovicheva, A.**, Maiello, G. A., Ferreira, A., Walker, L., Bex, P. J. (2017). Binocularity in myopia. *Poster presented at the International Myopia Conference.*

Hawladar, O.\*, Bex., P. J., & **Kosovicheva, A.** (2017). Sensory effects of dichoptic saccadic adaptation. *Paper presented at the Newfoundland Electrical and Computer Engineering Conference (NECEC).* (\*Best Paper Award in Women in Engineering)

Rosenholtz, R., Wolfe, B., Sawyer, B., **Kosovicheva, A.**, Reimer, B. (2017). Detecting driving-relevant events with peripheral vision. *Talk presented at the VSS Annual Meeting.*

**Kosovicheva, A.**, Kazlas, M., Hunter, D. G., Bex, P. (2017). What can we learn about strabismus from a 90 second gaze recording?: Rapid evaluation of oculomotor deficits in strabismus. *Poster presented at the Association for Research in Vision and Ophthalmology (ARVO) Meeting.*

Ferreira, A., **Kosovicheva, A.**, Bex, P. J., Vera-Diaz, F. A. (2017). Temporal contrast sensitivity in myopia. *Poster presented at the ARVO Annual Meeting.*

Bex, P. J., **Kosovicheva, A.**, Ferreira, A., Vera-Diaz, F. A. (2017). Effects of temporal frequency on binocularity and contrast sensitivity in amblyopia. *Poster presented at the VSS Annual Meeting.*

**Kosovicheva, A.**, Feffer, J., Alaoui Soce, A., Cain, M. S., Wolfe, J. M. (2017). When does visual search move on?: Using the color wheel to measure the dynamics of foraging search. *Poster presented at the VSS Annual Meeting.*

Vera-Diaz, F. A., **Kosovicheva, A.**, Ferreira, A., Bex, P. J. (2017). Effect of temporal vision on binocularity in ametropia. *Poster presented at the ARVO Annual Meeting.*

Wolfe, B., Fridman, L., **Kosovicheva, A.**, Reimer, B., Rosenholtz, R. (2017). Seeing the road in the blink of an eye: Rapid perception of the driver's visual environment. *Poster presented at the VSS Annual Meeting.*

**Kosovicheva, A.**, & Bex, P. (2016). Reading rainbows: Measuring the dynamics of word processing. *Talk presented at the VSS Annual Meeting.*

Wolfe, B., Dobres, J., **Kosovicheva, A.**, Rosenholtz, R., & Reimer, B. (2016). Reduction in legibility with degradation in older and younger observers. *Poster presented at the VSS Annual Meeting.*

**Kosovicheva, A. A.**, Wolfe, B. A., Cavanagh, P., Gorea, A., & Whitney, D. (2015). Dynamic recalibration of perceived space across the visual hemifields. *Poster presented at the VSS Annual Meeting.*

- Yamanashi Leib, A., **Kosovicheva, A. A.**, & Whitney, D. (2015). Perceiving the lifelikeness of crowds: summary statistical representations of abstract visual dimensions. *Poster presented at the VSS Annual Meeting.*
- Wood, K., Wolfe, B. A., **Kosovicheva, A. A.**, & Whitney, D. (2015). Speeded breakthrough of faces in interocular suppression requires configural information. *Poster presented at the VSS Annual Meeting.*
- Kosovicheva, A. A.** & Whitney, D. (2014). Stable individual distortions in the perceived locations of static stimuli. *Poster presented at the VSS Annual Meeting.*
- Yamanashi Leib, A., Bai, Y., **Kosovicheva, A. A.**, Chang, K., Puri, A., Robertson, L., & Whitney, D. (2014). Ensemble perception of multiple crowd characteristics. *Poster presented at the VSS Annual Meeting.*
- Lieberman, A., **Kosovicheva, A. A.**, & Whitney, D. (2014). Serial dependence of position perception. *Poster presented at the VSS Annual Meeting.*
- Wood, K., Wolfe, B. A., **Kosovicheva, A. A.**, Yamanashi Leib, A., & Whitney, D. (2014). Foveal input is not required for ensemble coding of emotional faces. *Poster presented at the VSS Annual Meeting.*
- Kosovicheva, A. A.**, & Whitney, D. (2013). A meridional anisotropy of the flash-drag effect. *Poster presented at the VSS Annual Meeting.*
- Wolfe, B. A., **Kosovicheva, A. A.**, Yamanashi Leib, A., & Whitney, D. (2013). Beyond fixation: Ensemble coding and eye movements. *Poster presented at the VSS Annual Meeting.*
- Kosovicheva, A. A.**, Wolfe, B., & Whitney, D. (2012). Effects of motion-induced mislocalizations on saccade landing position. *Talk presented at the VSS Annual Meeting.*
- Kosovicheva, A. A.**, Maus, G. W., Anstis, S., Cavanagh, P., Tse, P. U., & Whitney, D. (2011). The motion-induced shift in the perceived location of a grating also shifts its aftereffect. *Poster presented at VSS and at the Bay Area Vision Research Day.*
- Silver, M.A., **Kosovicheva, A. A.**, & Landau, A. N. (2011). ERP correlates of orientation-specific surround suppression. *Poster presented at the VSS Annual Meeting.*
- Kosovicheva, A. A.**, Landau, A. N., & Silver, M. A. (2010). Interactions of sustained spatial attention and surround suppression: an EEG study. *Poster presented at the Society for Neuroscience Meeting.*
- Kosovicheva, A. A.**, Landau, A. N., & Silver, M. A. (2010). Cholinergic modulation of EEG activity during sustained visual stimulation. *Poster presented at the UC Berkeley Annual Neuroscience Retreat.*
- Kosovicheva, A. A.**, Fortenbaugh, F. C., & Robertson, L. C. (2010). Spatial properties of the attentional repulsion effect. *Poster presented at the VSS Annual Meeting.*
- Landau, A. N., **Kosovicheva, A. A.**, & Silver, M. A. (2010). Interactions of sustained spatial attention and surround suppression: an SSVEP study. *Poster presented at the VSS Annual Meeting.*

#### **Other Academic Presentations:**

Vision Sciences Society (VSS) Demo Night:

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| 2014 | Kosovicheva, A., Wolfe, B., Chaney, W., Yamanashi Leib, A., Lieberman, A. "Strobwheel" |
| 2012 | Kosovicheva, A., Wolfe, B. "An Aftereffect Based on Texture Element Ratios."           |

## INVITED SEMINARS

- 2016 "Assessment of binocular function in amblyopia with psychophysics and eye tracking"  
Research Lecture Series, New England College of Optometry, Boston, MA
- 2016 "Temporal relationships between eye movements and visual processing"  
Perception and Action Seminar, Brown University, Providence, RI

## OTHER RESEARCH EXPERIENCE & AFFILIATIONS

- 2015 - Associated Research Personnel  
Department of Ophthalmology, Boston Children's Hospital
- 2009 - 2010 Staff Research Associate  
Silver Lab, Helen Wills Neuroscience Institute & School of Optometry, UC Berkeley  
PI: Dr. Michael Silver
- 2008 - 2009 Research Assistant  
Cognitive Neuropsychology Lab, Psychology Department, UC Berkeley  
PI: Dr. Lynn Robertson

## TEACHING EXPERIENCE

### Courses:

- 2017 Part-Time Lecturer (Fall 2017 Semester)  
Course: Sensation & Perception, Psychology Department, Northeastern University  
Instructor of record for an undergraduate lecture-based course covering the fundamentals of sensation and perception.
- 2010, 2015 Graduate Student Instructor (GSI) (Spring 2010 & Spring 2015 Semesters)  
Course: Perception, Psychology Department, UC Berkeley  
Taught classroom discussion sections for an undergraduate course in perception.

### Guest Lectures:

- 2016 Northeastern University, Boston, MA  
Lecture on binocular vision for Sensation & Perception undergraduate seminar  
Lectures on motion perception and on faces for Perception graduate seminar
- 2015 California State University, East Bay, Concord, CA  
Lecture on spatial vision for Sensation & Perception undergraduate course

## STUDENTS MENTORED

- 2018 Kelly Choi  
Undergraduate student, Northeastern University, Directed Study
- 2016 - 2018 Jungyeon Park  
Undergraduate student, Harvard University, Directed Study

2017	Erin Smith High school student, Research Science Institute (RSI) summer enrichment program
2017	Oishi Hawlader High school student, RSI program Best Paper Award in Women in Engineering, NECEC Conference
2016	Joseph Feffer High school student, RSI program
2015	Katja Kelleher Undergraduate student, Northeastern University, Directed Study Faculty Scholar Award, Psychology Department
2013 - 2015	Katherine Wood Undergraduate student, UC Berkeley, Directed Study Honors thesis completed in 2015; Warner Brown Memorial Prize, Psychology Department
2011 - 2013	Valentina Volk Undergraduate student, UC Berkeley Undergraduate Research Apprentice Program (URAP) Honors thesis completed in 2013
2011	Andrew Chang Undergraduate student, URAP

## **AD-HOC REVIEWER**

*Attention, Perception, & Psychophysics*  
*Cognitive Science*  
*IEEE Information Visualization Conference (InfoVis)*  
*Journal of Vision*  
*Optometry and Vision Science*  
*Perception*  
*Vision*  
*Vision Research*

## **OUTREACH**

2010 - 2015 Whitney Lab Outreach Program  
 Outreach visits to underserved K-12 schools in the San Francisco Bay Area twice a year, with presentations on topics in visual perception (color, motion, faces, depth). Developed visual illusion demonstrations for students.

## **MEMBERSHIPS HELD**

Association for Psychological Science (APS)  
 Association for Research in Vision and Ophthalmology (ARVO)  
 Psychonomic Society  
 Society for Neuroscience (SfN)  
 Vision Sciences Society (VSS)

## REFERENCES

David Whitney, PhD  
Professor  
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