

Anna Kosovicheva
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PROFESSIONAL APPOINTMENTS

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

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

RESEARCH INTERESTS

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

GRANTS AND FELLOWSHIPS

Funded:

2018 - 2020 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), \$192,090

2011 - 2014 Graduate Research Fellowship
National Science Foundation (NSF-GRFP), \$32,000 annually and tuition

Under review:

2021 Natural Sciences and Engineering Research Council (NSERC) Discovery Grant – Individual
“Individual differences in human visual spatial representations”

AWARDS AND HONORS

2020 Elsevier/Vision Research Travel Award, V-VSS Meeting
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 & Forthcoming Papers (underlined names denote students mentored):

1. Caoli, A., Sabatini, S., Gibaldi, A., Maiello, G., **Kosovicheva, A.**, & Bex, P. J. (2020). A dichoptic feedback-based oculomotor training method to manipulate interocular alignment. *Scientific Reports*, 10, 15634, 1-13.
2. **Kosovicheva, A.** & Bex, P. J. (2020). Perceptual effects of unequal saccadic adaptation produced by a dichoptic step. *Journal of Vision*, 20(5):7, 1-21.
3. **Kosovicheva, A.**, Alaoui-Soce, A., & Wolfe, J. M. (2020). Looking ahead: When do you find the next item in foraging visual search? *Journal of Vision*, 20(2):3, 1–24.
4. **Kosovicheva, A.**, & Bex, P. J. (2020). What color was it? A psychophysical paradigm for tracking subjective progress in continuous tasks. *Perception*, 49(1), 21–38.
5. **Kosovicheva, A.**, Ferreira, A., Vera-Diaz, F. A., & Bex, P. J. (2019). Effects of temporal frequency on binocular deficits in amblyopia. *Vision Research*, 163, 52-62.
6. Wolfe, B., Sawyer, B. D., **Kosovicheva, A.**, Reimer, B., & Rosenholtz, R. (2019). Detection of brake lights while distracted: Separating peripheral vision from cognitive load. *Attention, Perception, & Psychophysics*, 81, 2798–2813.
7. Wolfe, B., Fridman, L., **Kosovicheva, A.**, Seppelt, B., Mehler, B., Reimer, B., & Rosenholtz, R. (2019). Predicting road scenes from brief views of driving video. *Journal of Vision*, 19(5):8, 1–14.
8. 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.
9. Manassi, M., Liberman, A., **Kosovicheva, A.**, Zhang, K., & Whitney, D. (2018). Serial dependence in position occurs at the time of perception. *Psychonomic Bulletin & Review*, 25(6), 2245-2253.
10. 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)
11. **Kosovicheva, A.**, & Whitney, D. (2017). Stable individual signatures in object localization. *Current Biology*, 27(14), R700-R701.
12. 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*.
13. Yamanashi Leib, A., **Kosovicheva, A.**, & Whitney, D. (2016). Fast ensemble representations for abstract visual impressions. *Nature Communications*, 7, 13186.

14. 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.
15. 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.
16. **Kosovicheva, A. A.**, Wolfe, B. A., & Whitney, D. (2014). Visual motion shifts saccade targets. *Attention, Perception, & Psychophysics*, 76(6), 1778-1788.
17. **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.
18. **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.
19. **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.

CONFERENCE PRESENTATIONS (underlined names denote students mentored):

1. Wiecek, E., Nabasaliza, A., **Kosovicheva, A.**, Kazlas, M., Hunter, D. G., Bex, P. J. (2020). Differences in contrast sensitivity and binocular imbalance across the visual field in children with strabismus and anisometropic amblyopia. *Virtual poster presented at the American Academy of Optometry meeting.*
2. **Kosovicheva, A.**, Wiecek, E., Kazlas, M., Hunter, D. G., Bex, P. J. (2020). Modulation of stereopsis and sensory eye dominance by gaze direction in strabismus. *Online video presentation for the Association for Research in Vision and Ophthalmology (ARVO) Meeting.*
3. Wiecek, E., **Kosovicheva, A.**, Kazlas, M., Bex, P. J., Hunter, D. G. (2020). Decreased peripheral stereoacuity and ocular dominance in anisometropic amblyopia, strabismic, and normally-sighted young adults. *Online video presentation for the ARVO Annual Meeting.*
4. **Kosovicheva, A.**, Sridhar, K., & Bex, P. J. (2020). Image predictors of visual localization in natural scenes. *Poster presented at the Virtual Vision Sciences Society (VSS) Annual Meeting.*
5. **Kosovicheva, A.**, & Wolfe, J. M. (2019). When do you find the next item?: Using occluders to uncover the time course of visual foraging. *Poster presented at the VSS Annual Meeting.*
6. Alberti, C. F., **Kosovicheva, A.**, & Bex, P. J. (2019). Measuring the field of contrast sensitivity via saccadic foraging. *Poster presented at the VSS Annual Meeting.*
7. **Kosovicheva, A.**, Hawlder, O., Bex, P. J. (2018). Localization errors following saccadic adaptation to a dichoptic step. *Poster presented at the VSS Annual Meeting.*
8. 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.*
9. Hawlder, 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)

10. Rosenholtz, R., Wolfe, B., Sawyer, B., **Kosovicheva, A.**, Reimer, B. (2017). Perceptual and attentional factors in detection of driving-relevant visual events. *Talk presented at the VSS Annual Meeting.*
11. **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 ARVO Annual Meeting.*
12. Ferreira, A., **Kosovicheva, A.**, Bex, P. J., Vera-Diaz, F. A. (2017). Temporal contrast sensitivity in myopia. *Poster presented at the ARVO Annual Meeting.*
13. 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.*
14. **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.*
15. 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.*
16. 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.*
17. **Kosovicheva, A.**, & Bex, P. (2016). Reading rainbows: Measuring the dynamics of word processing. *Talk presented at the VSS Annual Meeting.*
18. 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.*
19. **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.*
20. 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.*
21. 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.*
22. **Kosovicheva, A. A.** & Whitney, D. (2014). Stable individual distortions in the perceived locations of static stimuli. *Poster presented at the VSS Annual Meeting.*
23. 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.*
24. Liberman, A., **Kosovicheva, A. A.**, & Whitney, D. (2014). Serial dependence of position perception. *Poster presented at the VSS Annual Meeting.*
25. 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.*

26. **Kosovicheva, A. A.**, & Whitney, D. (2013). A meridional anisotropy of the flash-drag effect. *Poster presented at the VSS Annual Meeting.*
27. 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.*
28. **Kosovicheva, A. A.**, Wolfe, B., & Whitney, D. (2012). Effects of motion-induced mislocalizations on saccade landing position. *Talk presented at the VSS Annual Meeting.*
29. **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.*
30. Silver, M.A., **Kosovicheva, A. A.**, & Landau, A. N. (2011). ERP correlates of orientation-specific surround suppression. *Poster presented at the VSS Annual Meeting.*
31. **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.*
32. **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.*
33. **Kosovicheva, A. A.**, Fortenbaugh, F. C., & Robertson, L. C. (2010). Spatial properties of the attentional repulsion effect. *Poster presented at the VSS Annual Meeting.*
34. 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., Liberman, A. "Strobwheel" |
| 2012 | Kosovicheva, A., Wolfe, B. "An Aftereffect Based on Texture Element Ratios." |

RESEARCH SEMINARS

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| 2020 | Whitney Lab, UC Berkeley, Berkeley, CA (June 29, 2020) |
| 2020 | School of Optometry, Indiana University, Bloomington, IN (March 30, 2020) |
| 2020 | Department of Psychology, University of Nevada, Reno, NV (Feb 27, 2020) |
| 2020 | Department of Psychology, Northeastern University, Boston, MA (Jan 30, 2020) |
| 2020 | Department of Psychology, University of Central Florida, Orlando, FL (Jan 23, 2020) |
| 2019 | Department of Psychology, North Carolina State University, Raleigh, NC (Nov 7, 2019) |
| 2019 | Research Lecture Series, New England College of Optometry, Boston, MA (Nov 5, 2019) |
| 2019 | Visual Attention Lab Seminar, Brigham and Women's Hospital, Boston, MA (Oct 15, 2019) |
| 2018 | Department of Psychology, Rochester Institute of Technology, Rochester, NY (Dec 5, 2018) |
| 2016 | Research Lecture Series, New England College of Optometry, Boston, MA (Nov 29, 2016) |
| 2016 | Perception and Action Seminar, Brown University, Providence, RI (April 14, 2016) |

GUEST LECTURES IN COURSES

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| 2020 | Computational Vision, Boston University, Boston, MA (Oct 7, 2020 & Oct 13, 2020) |
| 2019 | Undergraduate seminar in Perception, Northeastern University, Boston, MA (Nov 14, 2019) |

2019 Undergraduate seminar in Perception, Northeastern University, Boston, MA (Feb 11, 2019)
 2019 Psychology at Northeastern, Northeastern University, Boston, MA (Jan 31, 2019)
 2018 Psychology at Northeastern, Northeastern University, Boston, MA (Oct 1, 2018)
 2016 Undergraduate seminar in Perception, Northeastern University, Boston, MA (Nov 3, 2016)
 2016 Graduate seminar in Perception, Northeastern University, Boston, MA (March 1 & March 15, 2016)

OTHER RESEARCH EXPERIENCE & AFFILIATIONS

2015 - 2020 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.
 Instructor effectiveness rating: 4.45 / 5

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.
 Instructor effectiveness rating: 6.33 / 7

STUDENTS MENTORED

2020 Leah Brodie
 Undergraduate student, Northeastern University, Directed Study

2019 Koushik Sridhar
 High school student, Research Science Institute (RSI) summer enrichment program

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, RSI 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

MANUSCRIPT REVIEW

Attention, Perception, & Psychophysics, Cognitive Science, eLife, Eye and Vision, Frontiers in Medicine, IEEE Information Visualization Conference (InfoVis), Journal of Vision, Optometry and Vision Science, Perception / i-Perception, PLOS One, Quarterly Journal of Experimental Psychology, 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)