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APRIL 2022

EDUCATION:

- Ph.D. in Psychology: Cognition, Perception, and Cognitive Neuroscience, 2006
 University of California, Santa Barbara
- M.A. in Psychology: Cognition, Perception, and Cognitive Neuroscience, 2004 University of California, Santa Barbara
- B.A. in Psychology, 1998
 University of California, Los Angeles

PROFESSIONAL EXPERIENCE:

- Professor, Iowa State University, 2020-present
 Associate professor, Iowa State University, 2015-2020
 Assistant professor, Iowa State University, 2009-2015
 Director of Graduate Education
 Department of Psychology
 Human Computer Interaction graduate program
 Neuroscience graduate program
- Postdoctoral research associate, Vanderbilt University, 2007-2009
 Advisor: Dr. Timothy McNamara

GRANTS:

External:

- National Science Foundation, Cyber-Human Systems program (award number <u>1816029</u>):
 Kelly, J.W. & Gilbert, S.B. "CHS: Small: A Spatial Cognitive Framework For Personalizing Locomotion in Virtual Environments." \$547,772; 8/2018-7/2022. Role: PI.
- Army Research Lab STTC: Gilbert, S., Oliver, J. & Winer, E. "Advanced Live, Virtual, and Constructive Training systems." \$55,000 in 2011 research expenditures awarded to J.W. Kelly (Total award amount: \$2,686,000; 9/29/10 9/28/13). Role: Senior personnel.

Internal:

- Iowa State University Liberal Arts and Sciences Seed Grant for Social Sciences: Kelly, J.W.
 "Adaptation to cybersickness." \$7,962; 7/2021-6/2022.
- Iowa State University Presidential Initiative for Interdisciplinary Research in Data-Driven Science: Lawrence-Dill, Andorf, Friedberg, Ganapathy-Subramanian, & Kelly. "G2P: The Association of Large Scale Genomic and Phenomic Data." \$825,000; 8/15-6/18.
- Iowa State University Liberal Arts and Sciences Seed Grant for Social Sciences: Kelly, J.W.
 "Connecting animal neuroscience with human navigation." \$8,941; 8/2016-8/2017.
- University of Cyprus: Avraamides, M.N., Kelly, J.W., Galati, A., Panayiotou, Pantelidou, & Adamou. "Integration of spatial information across modalities." \$0 in research expenditures to J.W. Kelly due to funding restrictions for foreign collaborators (Total award amount: \$90,629; 1/1/2013-1/1/2015).

EDITORIAL RESPONSIBILITIES:

Associate editor:

- ACM Transactions on Applied Perception (2019-present)
- Frontiers in Virtual Reality (Special issue guest editor, 2022): Human Spatial Perception,
 Cognition, and Behaviour in Extended Reality

Editorial boards:

- Journal of Experimental Psychology: Learning, Memory, & Cognition (2013 present)
- National Science Foundation "College of Reviewers," Perception, Action, and Cognition Program (2015-2018)

HONORS AND AWARDS:

- Nickerson Award for best paper in the Journal of Experimental Psychology: Applied, 2020
- Association for Psychological Science Fellow
- Psychonomic Society Fellow
- Excellence in Mid-Career Research Award, Iowa State University, Psychology, 2018
- Excellence in Graduate Student Mentorship Award, Iowa State University, Psychology, 2017
- Excellence in Teaching Award, Iowa State University, Psychology, 2016
- Early Career Achievement in Research Award, Iowa State University, College of Liberal Arts and Sciences, 2014
- Faculty Member of the Year Award, Iowa State University, HCI Graduate Program, 2013
- Faculty Member of the Year Award, Iowa State University, HCI Graduate Program, 2012

Excellence in Early Career Research Award, Iowa State University, Psychology, 2012

PEER-REVIEWED JOURNAL ARTICLES (* GRADUATE STUDENT CO-AUTHOR; † UNDERGRADUATE STUDENT CO-AUTHOR):

- 56. *Cherep, L.A., **Kelly, J.W.**, *Miller, A.J., *Lim, A.F., & Gilbert, S.B. (in press). Individual differences in teleporting through virtual environments. *Journal of Experimental Psychology: Applied*.
- 55. **Kelly, J.W.**, *Lim, A.F., & Carpenter, S.C. (in press). Turn-by-turn route guidance does not impair route learning. *Journal of Applied Research in Memory and Cognition*.
- 54. **Kelly, J. W.**, *Doty, T. A., & †Ambourn, M. (2022). Distance perception in the Oculus Quest and Oculus Quest 2. *Frontiers in Virtual Reality*, *3*, 850471:1-7.
- 53. **Kelly, J. W.**, *Hoover, M., *Doty, T. A., *Renner, A., †Zimmerman, M., †Knuth, K., *Cherep, L. A., & Gilbert, S. B. (2022). Remote research on locomotion interfaces for virtual reality: Replication of a lab-based study on teleporting interfaces. *IEEE Transactions on Visualization and Computer Graphics*, 28(5), 2037-2046.
- 52. Fauville, G., Queiroz, A.C.M., Woolsey, E.S., **Kelly, J.W.**, & Bailenson, J.N. (2021). The effect of water immersion on vection in virtual reality. *Scientific Reports*, 11:1022, 1-13.
- 51. *Cherep, L.A., *Lim, A.F., **Kelly, J.W.**, Acharya, D., Velasco, A., Bustamante, E., *Ostrander, A., & Gilbert, S.B. (2020). Spatial cognitive implications of teleporting through virtual environments. *Journal of Experimental Psychology: Applied*, 26(3), 480-492.

2020 Nickerson Award for best paper in the journal.

50. **Kelly, J.W.**, *Lim, A.F., *Cherep, L.A., *Ostrander, A., & Gilbert, S.B. (2020). Teleporting through virtual environments: Effects of path scale and environment scale on spatial updating. *IEEE: Transactions on Visualization and Computer Graphics*, 26(5), 1841-1850.

Best paper nominee at 2020 IEEE Virtual Reality meeting.

- 49. **Kelly, J.W.**, †Klesel, B., & *Cherep, L.A. (2019). Visual stabilization of balance in virtual reality using the HTC Vive. *ACM: Transactions on Applied Perception, 16*(2), 8:1-11.
- 48. He, Q., McNamara, T.P., & **Kelly, J.W.** (2018). Reference frames in spatial updating when body-based cues are absent. *Memory & Cognition, 46,* 32-42.
- 47. **Kelly, J.W.**, *Cherep, L.A., †Klesel, B., †George, S., & *Siegel, Z.D. (2018). Comparison of two methods for improving distance perception in virtual reality. *ACM Transactions on Applied Perception*, 15(2), 11:1-11.
- 46. **Kelly, J.W.**, Costabile, K.A. & *Cherep, L.A. (2018). Social effects on reference frame selection. *Psychonomic Bulletin & Review*, 25(6), 2339-2345.
- 45. **Kelly, J.W.**, *Siegel, Z.D., *Sjolund, L.A., & Avraamides, M.N. (2018). Selection of macroreference frames in spatial memory. *Memory & Cognition*, 46, 1278-1286.
- 44. *Sjolund, L.A., Kelly, J.W. & McNamara, T.P. (2018). Optimal combination of environmental cues and path integration during navigation. *Memory & Cognition*, 46, 89-99.

- 43. *Zhou, N., *Siegel, Z.D., Zarecor, S., *Lee, N., Campbell, D.A., Andorf, C.M. Nettleton, D., Lawrence-Dill, C.J., Ganapathysubramanian, B., **Kelly, J.W.**, & Friedberg, I. (2018). Crowdsourcing image analysis for plant phenomics to generate ground truth data for machine learning. *PLOS Computational Biology*, 14(7): e1006337.
- 42. Chen, X., McNamara, T.P., **Kelly, J.W.**, & Wolbers, T. (2017). Cue combination in human spatial navigation. *Cognitive Psychology*, *95*, 105-144.
- 41. **Kelly, J.W.**, *Cherep, L.A., & *Siegel, Z.D. (2017). Perceived space in the HTC Vive. *Transactions on Applied Perception*, 15(1), 2:1-16.
- 40. *Siegel, Z.D. & **Kelly, J.W.** (2017). Walking through a virtual environment improves perceived size within and beyond the walked space. *Attention, Perception, & Psychophysics, 79*(1), 39-44.
- 39. *Siegel, Z.D., **Kelly, J.W.**, & *Cherep, L.A. (2017). Rescaling of perceived space transfers across virtual environments. *Journal of Experimental Psychology: Human Perception and Performance*, 43(10), 1805-1814.
- 38. Pantelides, S.N., Avraamides, M.N., & **Kelly, J.W.** (2016). Integration of spatial information across vision and language. *Journal of Cognitive Psychology*, 28(2), 171-185.
- 37. Chen, X., He, Q., **Kelly, J.W.**, Fiete, I.R., McNamara, T.P. (2015). Bias in human path integration is predicted by properties of grid cells. *Current Biology*, 25(13), 1771-1776.
- 36. **Kelly, J.W.**, Carpenter, S.K., & *Sjolund, L.A. (2015). Retrieval enhances route knowledge acquisition, but only when movement errors are prevented. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 41*(5), 1540-1547.
- 35. **Kelly, J.W.**, †Hammel, W., *Siegel, Z.D., & *Sjolund, L.A. (2015). Frontal extents in virtual environments are not immune to underperception. *Attention, Perception, & Psychophysics, 77*, 1848-1853.
- 34. Adamou, C., Avraamides, M.N. & **Kelly, J.W.** (2014). Integration of visuo-spatial information encoded from different viewpoints. *Psychonomic Bulletin & Review, 21*(3), 659-665.
- 33. Avraamides, M.N., Sarrou, M. & **Kelly, J.W.** (2014). Cross-sensory reference frame transfer in spatial memory: the case of proprioceptive learning. *Memory & Cognition, 42,* 496-507.
- 32. **Kelly, J.W.**, †Hammel, W., *Siegel, Z.D., & *Sjolund, L.A. (2014). Recalibration of perceived distance in virtual reality occurs rapidly and transfers asymmetrically across scale. *IEEE Transactions on Visualization & Computer Graphics*, 22, 588-595.
- 31. *Marsh, W.E., **Kelly, J.W.**, Dickerson, J., & Oliver, J.H. (2014). Fuzzy navigation engine: Mitigating the cognitive demands of semi-natural locomotion. *Presence: Teleoperators and Virtual Environments*, 23(3), 300-319.
- 30. *Sjolund, L.A., *Erdman, M., & Kelly, J.W. (2014). Collaborative inhibition in spatial memory retrieval. *Memory & Cognition*, 42, 876-885.
- 29. Greenauer, N., Mello, C., **Kelly, J.W.** & Avraamides, M.N. (2013). Integrating spatial information across experiences. *Psychological Research*, 77(5), 540-554.
- 28. **Kelly, J.W.**, *Burton, M., *Pollock, B., *Rubio, E., *Curtis, M., de la Cruz, J., Gilbert, S., & Winer, E. (2013). Space perception in virtual environments: Displacement from the center of

- projection causes less distortion than predicted by cue-based models. ACM Transactions on Applied Perception, 10(4), 18:1-23.
- 27. **Kelly, J.W.**, †Donaldson, L.S., *Sjolund, L.A., & †Freiberg, J.B. (2013). More than just perception-action recalibration: Walking through a virtual environment causes rescaling of perceived space. *Attention, Perception, & Psychophysics, 75*, 1473-1485.
- 26. **Kelly, J.W.**, *Sjolund, L.A. & Sturz, B.R. (2013). Geometric cues, reference frames, and the equivalence of experienced-aligned and novel-aligned views in human spatial memory. *Cognition*, 126, 459-474.
- 25. *Marsh, W.E., **Kelly, J.W.**, Dark, V.J., Oliver, J.H. (2013). Cognitive demands of semi-natural virtual locomotion. *Presence: Teleoperators and Virtual Environments, 22,* 216-234.
- 24. Carpenter, S.K. & **Kelly, J.W.** (2012). Tests enhance retention and transfer of spatial learning. *Psychonomic Bulletin & Review, 19*(3), 443-448.
- 23. *Pollock, B., *Burton, M., Kelly, J.W., Gilbert, S. & Winer, E. (2012). The right view from the wrong location: Depth perception in stereoscopic multi-user virtual environments. *IEEE Transactions on Visualization & Computer Graphics*, 18(4), 581-588.
- 22. **Kelly, J.W.** (2011). Head for the hills: The influence of environmental slant on spatial memory organization. *Psychonomic Bulletin & Review, 18*, 774-780.
- 21. **Kelly, J.W.** & Avraamides, M.N. (2011). Cross-sensory transfer of reference frames in spatial memory. *Cognition*, *118*, 444-450.
- 20. **Kelly, J.W.**, Avraamides, M.N. & Giudice, N.A. (2011). Haptic experiences influence visually-acquired memories: Reference frames during multimodal spatial learning. *Psychonomic Bulletin* & Review, 18(6), 1119-1125.
- 19. **Kelly, J.W.** & McNamara, T.P. (2010). Reference frames during the acquisition and development of spatial memories. *Cognition*, 116(3), 409-420.
- 18. Avraamides, M.N. & **Kelly, J.W.** (2010). Multiple systems of spatial memory: Evidence from described scenes. *Journal of Experimental Psychology: Learning, Memory & Cognition, 36*(3), 635-645.
- 17. **Kelly, J.W.** & McNamara, T.P. (2009). Facilitated pointing to remembered objects in front: Evidence for egocentric retrieval or spatial priming? *Psychonomic Bulletin & Review, 16*(2), 295-300.
- 16. **Kelly, J.W.**, McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2009). Individual differences in using geometric and featural cues to maintain spatial orientation: Cue quantity and cue ambiguity are more important than cue type. *Psychonomic Bulletin & Review, 16*(1), 176-181.
- 15. Avraamides, M.N. & **Kelly, J.W.** (2008). Multiple systems for spatial memory and action. *Cognitive Processing, 9*, 93-106.
- 14. **Kelly, J.W.** & McNamara, T.P. (2008a). Response mode differences in perspective taking: Differences in representation or differences in retrieval? *Memory & Cognition, 36*(4), 863-872.
- 13. **Kelly, J.W.** & McNamara, T.P. (2008b). Spatial memories of virtual environments: How egocentric experience, intrinsic structure, and extrinsic structure interact. *Psychonomic Bulletin & Review, 15*(2), 322-327.

- 12. **Kelly, J.W.**, McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2008). The shape of human navigation: How environmental geometry is used in maintenance of spatial orientation. *Cognition*, 109, 281-286.
- 11. **Kelly, J.W.**, Riecke, B., Loomis, J.M. & Beall, A.C. (2008). Visual control of posture in real and virtual environments. *Perception & Psychophysics*, 70(1), 158-165.
- 10. Loomis, J.M., **Kelly, J.W.**, Pusch, M., Bailenson, J.N. & Beall, A.C. (2008). Psychophysics of perceiving eye-gaze and head direction with peripheral vision: Implications for the dynamics of eye-gaze behavior. *Perception*, *37*(9), 1443-1457.
- 9. **Kelly, J.W.**, Avraamides, M.N. & Loomis, J.M. (2007). Sensorimotor alignment effects in the learning environment and in novel environments. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 33(6), 1092-1107.
- 8. Macuga, K.L., Beall, A.C., **Kelly, J.W.**, Smith, R. & Loomis, J.M (2007). Changing lanes: Inertial cues and explicit path information facilitate steering performance when visual feedback is removed. *Experimental Brain Research*, 178(2), 141-160.
- 7. Zahorik, P. & **Kelly, J.W.** (2007). Accurate vocal compensation for sound intensity loss with increasing distance in natural environments. *Journal of the Acoustical Society of America*, 122(5), EL143-EL150.
- 6. **Kelly, J.W.**, Loomis, J.M., Beall, A.C, Smith, R.S. & Macuga, K.L. (2006). Simultaneous measurement of steering performance and perceived heading on a curving path. *ACM: Transactions on Applied Perception*, 3(2), 83-94.
- 5. Loomis, J.M., Beall, A.C., Macuga, K.L., **Kelly, J.W.** & Smith, R. (2006). Visual control of action without retinal optic flow. *Psychological Science*, 17(3), 214-221.
- 4. Macuga, K.L., Loomis, J.M., Beall, A.C. & **Kelly, J.W.** (2006). Perception of heading without retinal optic flow. *Perception & Psychophysics*, 68(5), 872-878.
- 3. **Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2005). The importance of perceived relative motion in the control of posture. *Experimental Brain Research*, 161(3), 285-292.
- 2. **Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2004). Judgments of exocentric direction in large-scale space. *Perception*, *33*(4), 443-454.
- 1. **Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2004). Perception of shared visual space: Establishing common ground in real and virtual environments. *Presence: Teleoperators and Virtual Environments*, 13(4), 442-450.

PEER-REVIEWED CONFERENCE PROCEEDINGS (*GRADUATE STUDENT CO-AUTHOR; †UNDERGRADUATE STUDENT CO-AUTHOR):

- 25. Gilbert, S. B., *Jasper, A., *Sepich, N. C., *Doty, T., **Kelly, J. W.**, & Dorneich, M. C. (2021). Individual Differences & Task Attention in Cybersickness: A Call for a Standardized Approach to Data Sharing. *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops: Workshop on Immersive Sickness Prevention (WISP), Virtual, 161-164.*
- 24. *Jasper, A., *Doty, T., *Sepich, N., Dorneich, M. C., Gilbert, S. B., & Kelly, J. W. (2021). The relationship between personality, recalled cybersickness severity, and recalled cybersickness

- recovery time. Proceedings of the Human Factors and Ergonomics Society 2021 Annual Meeting, Baltimore, MD.
- 23. *Kalu, C. U., Gilbert, S. B., & Kelly, J. W. (2021). Translating Virtual Reality Research into Practice as a Way to Combat Misinformation: The DOVE Website. *Proceedings of HCI International 2021: 23rd International Conference on Human-Computer Interaction*, Virtual.
- 22. **Kelly, J.W.**, *Cherep, L.A., *Lim, A.F., *Doty, T., & Gilbert, S.B. (2021). Who are virtual reality headset owners? A survey and comparison of headset owners and non-owners. *2021 IEEE Virtual Reality and 3D User Interfaces (VR)*, Virtual, 687-694. (23% acceptance rate)
- 21. **Kelly, J.W.** & Gilbert, S.B. (2021). The effectiveness of locomotion interfaces depends on self-motion cues, environmental cues, and the individual. *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops*, Virtual, 391-392.
- 20. **Kelly, J. W.**, Terrill, J., Zimmerman, M., Doty, T. A., Cherep, L. A., Hoover, M. T., Powell, N. R., Perrin, O. J., & Gilbert, S. B. (2021). Boundaries facilitate spatial orientation in virtual environments. *ACM Symposium for Spatial User Interaction (SUI '21)*, Online.
- 19. *Lim, A.F., **Kelly, J.W.**, *Sepich, N., *Cherep, L.A., †Freed, G. & Gilbert, S.B. (2020). Rotational self-motion cues improve spatial learning when teleporting in virtual environments. *SUI '20: Symposium on Spatial User Interaction*, 8:1–7. (35% acceptance rate)
- 18. *Cherep, L.A., *Lim, A.F., **Kelly, J.W.**, *Miller, A., & Gilbert, S.B. (2020). Individual differences in teleporting through virtual environments: A latent profile analysis. *Proceedings of IEEE Virtual Reality Annual Meeting*, Atlanta, GA, 725-726.
- 17. He, Q., McNamara, T.P., & **Kelly, J.W.** (2017). Environmental and idiothetic cues to reference frame selection in path integration. In T. Barkowsky, H. Burte, C. Hölscher, H. Schultheis (Eds.), *Spatial Cognition X: Lecture Notes in Computer Science, vol 10523* (pp. 137-156). Springer.
- *Curtis, M. K., Dawson, K., Jackson, K., Litwin, L., *Meusel, C., Dorneich, M.C., Gilbert, S. B., Kelly, J. W., Stone, R., Winer, E. (2015). Mitigating visually induced motion sickness: A virtual hand-eye coordination task. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 1839-1843.
- 15. *Casallas, J.S., Oliver, J., Kelly, J.W., Merienne, F. & Garbaya, S. (2014). Using Relative Head and Hand–Target Features to Predict Intention in 3D Moving-Target Selection. *Proceedings of IEEE Virtual Reality*, 51-56.
- 14. Gilbert, S., †Civitate, A., **Kelly, J.W.**, *Thompson, F., †Smith, A., *Kopecky, K., Winer, E., & de la Cruz, J. (2013). Comparing training performance with vibrotactile hit alerts versus audio alerts. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference*.
- 13. **Kelly, J.W.**, Winer, E., Gilbert, S., *Curtis, M., *Rubio, E., *Kopecky, K, *Holub, J., & de la Cruz, J. (2013). Assessing multiple participant view positioning in virtual reality-based training. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference*.
- 12. *Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2013). Towards a model for predicting user intention in 3D moving-target selection tasks. In D. Harris (Ed.), *Proceedings of HCI International: Lecture Notes in Artificial Intelligence*, 8019 (pp. 13–22). Berlin: Springer.

- 11. Avraamides, M.N., Adamou, C., Galati, A. & **Kelly, J.W.** (2012). Integration of spatial relations across perceptual experiences. In C. Stachniss, K. Schill, D. Uttal (Eds.), *Spatial Cognition VIII: Lecture Notes in Artificial Intelligence* (pp. 416-430). Berlin: Springer.
- *Boonsuk, W., Gilbert, S.B. & Kelly, J.W. (2012). The impact of three interfaces for 360degree video on spatial cognition. CHI 2012, Proceedings of the Conference on Human Factors in Computing Systems (pp. 2579-2588).
- 9. *Burton, M.B., *Pollock, B.B., **Kelly, J.W.**, Gilbert, S.B., Winer, E. & de la Cruz, J. (2012). Diagnosing perceptual distortion present in group stereoscopic viewing. *Proceedings of the SPIE 8291*, 82910P.
- 8. Gilbert, S.B., *Boonsuk, W. & Kelly, J.W. (2012). Virtual displays for 360-degree video. *Proceedings of the SPIE*, 8291, 82911L.
- 7. *Marsh, W.E., Kelly, J.W., Dark, V.J., Oliver, J.H. (2012). The cognitive implications of virtual locomotion with a restricted field of view. *Proceedings of the SPIE*, 8289, 82890I.
- 6. *Marsh, W.E., Putnam, M., Kelly, J.W., Dark, V.J. & Oliver, J. (2012). The cognitive implications of semi-natural virtual locomotion. *Proceedings of IEEE Virtual Reality 2012*, 47-50.
- 5. *Marsh, W.E., **Kelly, J.W.**, Dark, V.J. & Oliver, J. (2011). Assessing the use of cognitive resources in virtual reality. *Proceedings of HCI International*, 174, 120-124.
- 4. **Kelly, J.W.**, Avraamides, M.N. & McNamara, T.P. (2010). Reference frames influence spatial memory development within and across sensory modalities. In C. Holscher, T.F. Shipley, M.O. Belardinelli, J.A. Bateman, N.S. Newcombe (Eds.), *Spatial Cognition VII: Lecture Notes in Artificial Intelligence* (pp. 222-233). Berlin: Springer.
- 3. **Kelly, J.W.** & McNamara, T.P. (2008). Spatial memory and spatial orientation. In C. Freksa (Ed.), *Spatial Cognition VI: Lecture Notes in Artificial Intelligence* (pp. 22-38). Berlin: Springer.
- 2. Avraamides, M.N. & **Kelly, J.W.** (2005). Imagined perspective-changing within and across novel environments. In C. Freksa, B. Nebel, M. Knauff, B. Krieg-Brückner (Eds.), *Spatial Cognition IV* Reasoning, Action, Interaction: Lecture Notes in Artificial Intelligence (pp. 246-259). Berlin: Springer.
- 1. Loomis, J.M., Beall, A.C., **Kelly, J.W.** & Macuga, K.L. (2005). Importance of perceptual representation in the visual control of action. *Proceedings of the SPIE, 5666*, 356-361.

OTHER PUBLICATIONS:

1. **Kelly, J.W.** & McNamara, T.P. (2009). Spatial memory. In B. Goldstein (Ed.), *Encyclopedia of Perception* (pp. 916-918). Thousand Oaks, CA: SAGE Publications.

INVITED PRESENTATIONS:

- Kelly, J.W. (2022). Navigating through virtual environments. Department of Computer Science, Mississippi State University.
- Cherep, L. A. & Kelly, J. W. (2021). Hop, skip, and a jump: exploring the spatial cognitive costs of teleporting in virtual reality. Nickerson Award Lecture, APA 2021.

- Kelly, J.W. (2021). Navigating through virtual environments. Department of Psychology, Oregon State University.
- Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Department of Psychology, University of Iowa.
- Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Center for Cognitive Sciences, University of Minnesota.
- Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Talk presented at the annual meeting of the *Midwestern Psychological Association*, Chicago, IL.
- Kelly, J.W. (2018). Teleporting through virtual environments. Talk presented at the 2018 Interdisciplinary Navigation Symposium, Quartier Tremblant, Canada.
- Kelly, J. W. (2016). "Crowdsourcing for plant phenotypes." Talk presented at workshop on "Phenotypic prediction: image acquisition and analysis." Ames, IA.
- Kelly, J.W. (2013). "Lost in virtual space: Navigation, grid cells, and space perception." Department of Psychology, University of Iowa.
- Kelly, J.W. (2010). "The influence of body-based and environment-based cues on spatial memory and spatial orientation." Department of Psychology, University of Cyprus.

CONFERENCE PRESENTATIONS (* INDICATES GRADUATE STUDENT CO-AUTHOR; † INDICATES UNDERGRADUATE STUDENT CO-AUTHOR):

- 94. **Kelly, J. W.**, *Hoover, M., *Doty, T. A., *Renner, A., †Zimmerman, M., †Knuth, K., *Cherep, L. A., & Gilbert, S. B. (2022). Remote research on locomotion interfaces for virtual reality: Replication of a lab-based study on teleporting interfaces. Talk presented at *IEEE Virtual Reality*, Virtual conference.
- 93. *Cherep, L. A. & **Kelly, J. W.** (2021). Individual differences in the integration of vertical spaces. Talk presented at the 62nd Annual Meeting of the Psychonomic Society, New Orleans, LA.
- 92. *Doty, T. A., **Kelly, J. W.**, & †Ambourn, M. (2021). Distance perception in virtual reality: Comparing modern headsets to the real world. Talk presented at the annual *APA Technology, Mind, and Society Conference*, Virtual.
- 91. *Jasper, A., *Doty, T., *Sepich, N., Dorneich, M. C., Gilbert, S. B., & **Kelly, J. W.** (2021). The relationship between personality, recalled cybersickness severity, and recalled cybersickness recovery time. Talk presented at the *Human Factors and Ergonomics Society Annual Meeting*, Baltimore, MD.
- 90. *Kalu, C. U., Gilbert, S. B., & **Kelly, J. W.** (2021). Translating Virtual Reality Research into Practice as a Way to Combat Misinformation: The DOVE Website. Poster presented at *HCI International*, Virtual.
- 89. **Kelly, J. W.**, Terrill, J., Zimmerman, M., Doty, T. A., Cherep, L. A., Hoover, M. T., Powell, N. R., Perrin, O. J., & Gilbert, S. B. (2021). Boundaries facilitate spatial orientation in virtual environments. Poster presented at the *ACM Symposium for Spatial User Interaction (SUI '21)*, Online.

- 88. Gilbert, S. B., *Jasper, A., *Sepich, N. C., *Doty, T., **Kelly, J. W.**, & Dorneich, M. C. (2021). Individual Differences & Task Attention in Cybersickness: A Call for a Standardized Approach to Data Sharing. Talk presented at the "Workshop on immersive sickness prevention (WISP) at the *IEEE Conference on Virtual Reality and 3D User Interfaces*, Virtual.
- 87. *Hoover, M., *Cherep, L.A., **Kelly, J.W.** & Gilbert, S.B. (2021). Ensuring the reliability of remote VR research data. Talk presented at the "XR Remote Research" workshop at *CHI* 2021, Virtual.
- 86. **Kelly, J.W.**, *Cherep, L.A., *Lim, A.F., *Doty, T., & Gilbert, S.B. (2021). Who are virtual reality headset owners? A survey and comparison of headset owners and non-owners. Talk presented at the *2021 IEEE Virtual Reality and 3D User Interfaces* annual meeting, Virtual.
- 85. **Kelly, J.W.** & Gilbert, S.B. (2021). The effectiveness of locomotion interfaces depends on self-motion cues, environmental cues, and the individual. Talk presented at the "Finding a way forward in VR locomotion" workshop at the *IEEE Conference on Virtual Reality and 3D User Interfaces*, Virtual.
- 84. *Cherep, L.A., *Lim, A.F., **Kelly, J.W.**, *Miller, A., & Gilbert, S.B. (2020). Individual differences in teleporting through virtual environments: A latent profile analysis. Poster presented at the *IEEE Virtual Reality Annual Meeting*, Atlanta, GA.
- 83. **Kelly, J.W.**, *Lim, A.F., *Cherep, L.A., *Ostrander, A., & Gilbert, S.B. (2020). Teleporting through virtual environments: Effects of path scale and environment scale on spatial updating. Talk presented at the *IEEE Virtual Reality Annual Meeting*, Atlanta, GA.
- 82. *Lim, A.F., **Kelly, J.W.**, *Sepich, N., *Cherep, L.A., †Freed, G. & Gilbert, S.B. (2020). Rotational self-motion cues improve spatial learning when teleporting in virtual environments. Talk presented at the *Symposium on Spatial User Interaction*, Virtual.
- 81. *Cherep, L.A., **Kelly, J.W.**, *Lim, A.F., †Acharya, D., †Velasco, A., †Bustamante, E., *Ostrander, A., Gilbert, S.B. (2019). Boundaries plus landmarks mitigate limited self-motion in virtual reality. Talk presented at the annual meeting of the *Midmestern Psychological Association*, Chicago, IL.
- 80. **Kelly, J.W.**, *Cherep, L.A., *Lim, A.F., *Ostrander, A., & Gilbert, S. (2019). Teleporting through virtual environments. Talk presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, Quebec.
- 79. *Lim, A.F., *Cherep, L.A., **Kelly, J.W.**, *Ostrander, A., & Gilbert, S. (2019). The effect of spatial scale when teleporting through virtual environments. Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, Quebec.
- 78. *Cherep, L.A., **Kelly, J.W.**, & McNamara, T.P. (2018). Effect of spatial and non-spatial environmental changes on human perception of self-location. Poster presented at the 59th Annual Meeting of the Psychonomic Society, New Orleans, LA.
- 77. *Lim, A.F, **Kelly, J.W.**, & Carpenter, S.K. (2018). Effect of testing on route learning using GPS navigation. Poster presented at the 59th Annual Meeting of the Psychonomic Society, New Orleans, LA.
- 76. *Cherep, L., Kelly, J.W., & McNamara, T.P. (2018). Human perception of self-location. Poster presented at the 2018 Interdisciplinary Navigation Symposium, Quartier Tremblant, Canada.

- 75. *Cherep, L., Kelly, J., †Acharya, D., †Bustamante, E., †Velasco II, A. (2018). Body-Based Cues Improve Spatial Updating in Virtual Reality. Talk presented at the 2018 meeting of the *Midwestern Psychological Association*, Chicago, IL.
- 74. *Lim, A., *Cherep, L., †Acharya, D., †Bustamante, E., †Velasco II, A., Kelly, J. (2018). Sex Differences in Navigation When Teleporting through Virtual Environments. Talk presented at the 2018 meeting of the *Midwestern Psychological Association*, Chicago, IL.
- 73. *Cherep, L.A., **Kelly, J.W.**, & Costabile, K.A. (2017). Social effects on reference frame selection. Poster presented at the *58th Annual Meeting of the Psychonomic Society*, Vancouver, Canada.
- 72. *Cherep, L.A., **Kelly, J.W.**, *Siegel, Z.D. (2017). Walking interaction improves distance judgments in virtual reality. Poster presented at the 2017 meeting of the *Midwestern Psychological Association*.
- 71. †Klesel, B., *Cherep, L.A., **Kelly, J.W.**, & *Siegel, Z.D. (2017). Rescaling of perceived space transfers across virtual environments. Poster presented at the 2017 meeting of the *Midwestern Psychological Association*.
- 70. *Lee, N., *Zhou, N., *Siegel, Z., Zarecor, S., Srinivasan, S., Nettleton, D., Lawrence-Dill, C., Freidberg, I., **Kelly, J.**, Schnable, P., & Ganapathysubramanian, B. (2017). High throughput plant phenotyping in the field: Machine learning enabled by data from crowdsourcing. Talk presented at *International Plant and Animal Genome XXV*, San Diego, CA.
- 69. He, Q., McNamara, T.P., & **Kelly, J.W.** (2016). Difficult spatial updating relies on the initial facing orientation as the reference direction in path integration. Poster presented at *Spatial Cognition 2016*, Philadelphia, PA.
- 68. *Siegel., Z.D., **Kelly, J.W.**, †George, S., †Huney, J., & †Klesel, B. (2016). Impact of environment preview on distance perception in virtual reality. Poster presented at the 57th Annual Meeting of the Psychonomic Society, Boston, MA.
- 67. *Sjolund, L.A. & **Kelly, J.W.** (2016). Optimal integration of geometric and optic flow cues to navigation. Poster presented at the *57th Annual Meeting of the Psychonomic Society*, Boston, MA.
- 66. *Curtis, M. K., Dawson, K., Jackson, K., Litwin, L., *Meusel, C., Dorneich, M.C., Gilbert, S. B., **Kelly, J. W.**, Stone, R., Winer, E. (2015). Visually induced motion sickness: A virtual hand-eye coordination task. Presented at the *Human Factors and Ergonomics Society Annual Meeting*, Los Angeles, CA.
- 65. He, Q., McNamara, T. P., & **Kelly, J.W.** (2015). Difficult spatial updating relies on an environmental reference direction. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.
- 64. *Siegel, Z.D. & **Kelly, J.W.** (2015). Rescaling of perceived space in virtual reality. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.
- 63. *Sjolund, L.A., **Kelly, J.W.**, & McNamara, T.P. (2015). Cue integration during navigation. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.
- 62. *Siegel, Z.D. & Kelly, J.W. (2014). Distance perception in virtual environments improves with visual feedback and transfers across environments. Poster presented at the *Psychonomic Society Annual Meeting*, Long Beach, CA.

- 61. *Sjolund, L.A., **Kelly, J.W.**, & McNamara, T.P. (2014). Cue integration during navigation. Poster presented at the *Psychonomic Society Annual Meeting*, Long Beach, CA.
- 60. *Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2014). Using Relative Head and Hand–Target Features to Predict Intention in 3D Moving-Target Selection. Talk presented at *IEEE Virtual Reality*, Minneapolis, MN.
- 59. **Kelly, J.W.**, †Hammel, W., *Siegel, Z.D., & *Sjolund, L.A. (2014). Recalibration of perceived distance in virtual reality occurs rapidly and transfers asymmetrically across scale. Talk presented at *IEEE Virtual Reality*, Minneapolis, MN.
- 58. Adamou, C., Avraamides, M.N., & **Kelly, J.W.** (2013). Integration of spatial information across visual experiences. Poster presented at the *European Society for Cognitive Psychology Annual Conference*, Budapest, Hungary.
- 57. Carpenter, S.K., **Kelly, J.W.**, & *Sjolund, L.A. (2013). The effects of retrieval practice on visuospatial learning. Talk presented at the 10th annual meeting of the Society for Applied Research in Memory and Cognition (SARMAC), Rotterdam.
- *Casallas, J.S., Oliver, J., Kelly, J.W., Merienne, F. & Garbaya, S. (2013). Towards a model for predicting user intention in 3D moving-target selection tasks. Poster presented at HCI International, Las Vegas, NV.
- 55. Gilbert, S., †Civitate, A., **Kelly, J.W.**, *Thompson, F., †Smith, A., *Kopecky, K., Winer, E., & de la Cruz, J. (2013). Comparing training performance with vibrotactile hit alerts versus audio alerts. Talk presented at the 2013 *Interservice/Industry Training, Simulation and Education Conference*, Orlando, FL.
- 54. **Kelly, J.W.**, *Sjolund, L.A. & McNamara, T.P. (2013). Cue integration during navigation. Talk presented at *Spatial Memory: Bayes and Beyond*, Richmond, VA.
- 53. **Kelly, J.W.**, Winer, E., Gilbert, S., *Curtis, M., *Rubio, E., *Kopecky, K, *Holub, J., & de la Cruz, J. (2013). Assessing multiple participant view positioning in virtual reality-based training. Talk presented at the 2013 *Interservice/Industry Training, Simulation and Education Conference*, Orlando, FL.
- 52. Pantelides, S.N., Avraamides, M.N., & **Kelly, J.W.** (2013). Integrating spatial information across vision and language. Poster presented at the *European Society for Cognitive Psychology Annual Conference*, Budapest, Hungary.
- 51. *Siegel, Z.D., *Sjolund, L.A., **Kelly, J.W.**, & Avraamides, M.N. (2013). Macro-reference frame selection. Poster presented at the *Psychonomic Society Annual Meeting*, Toronto.
- 50. Sturz, B.R., *Sjolund, L.A. & **Kelly, J.W.** (2013). Geometric cues, reference frames, and the equivalence of experienced-aligned and novel-aligned views in human spatial memory. Talk presented at the 20th Annual Conference on Comparative Cognition, Melbourne, FL.
- 49. Adamou, C., Avraamides, M.N., Galati, A. & **Kelly, J.W.** (2012). Integration of spatial relations across perceptual experiences. Talk presented at *Spatial Cognition 2012* in Bavaria, Germany.
- 48. *Boonsuk, W., Gilbert, S.B. & **Kelly, J.W.** (2012). The impact of three interfaces for 360-degree video on spatial cognition. Talk presented at *CHI 2012*, Austin, TX.

- 47. *Burton, M.B., *Pollock, B.B., **Kelly, J.W.**, Gilbert, S.B., Winer, E. & de la Cruz, J. (2012). Diagnosing perceptual distortion present in group stereoscope viewing. Talk presented at *Human Vision and Electronic Imaging XVII, SPIE*, San Francisco, CA.
- 46. *Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2012). Predicting user intention to enhance interaction in a virtual environment. Poster presented at the 9th Annual Emerging Technologies Conference, Ames, IA.
- 45. *Erdman, M., *Sjolund, L.A., & **Kelly, J.W.** (2012). Collaborative inhibition in spatial memory retrieval. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.
- 44. Gilbert, S.B., *Boonsuk, W. & **Kelly, J.W.** (2012). Virtual displays for 360-degree video. Poster presented at *Human Vision and Electronic Imaging XVII, SPIE*, San Francisco, CA.
- 43. *Marsh, W.E., **Kelly, J.W.**, Dark, V.J., Oliver, J.H. (2012). The cognitive implications of virtual locomotion with a restricted field of view. Talk presented at *The Engineering Reality of Virtual Reality 2012, SPIE*, San Francisco, CA.
- 42. McNamara, T.P., Chen, X. & **Kelly, J.W.** (2012). Grid cells and human path integration. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.
- 41. Pantalides, S.N., Avraamides, M.N. & **Kelly, J.W.** (2012). Integrating spatial information across vision and language. Talk presented at the 13th European Workshop on Imagery and Cognition, Bochum, Germany.
- 40. *Pollock, B., *Burton, M., **Kelly, J.W.**, Gilbert, S. & Winer, E. (2012). The right view from the wrong location: Depth perception in stereoscopic multi-user virtual environments. Talk presented at *IEEE Virtual Reality 2012*, Irvine, CA.
- 39. *Sjolund, L.A., **Kelly, J.W.** & McNamara, T.P. (2012). Cue integration during navigation. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.
- 38. Adamou, C.D., Avraamides, M.N. & **Kelly, J.W.** (2011). Integration of visuo-spatial information encoded from different viewpoints. Poster presented at the *European Congress of Psychology*, Istanbul, Turkey.
- 37. *Boonsuk, W., Gilbert, S.B. & **Kelly, J.W.** (2011). Usability study for 360-degree view interfaces. Poster presented at the 8th Annual Emerging Technologies Conference, Ames, IA.
- 36. *Burton, M., Gilbert, S.B., **Kelly, J.W.**, *Pollock, B. & *Jose, S. (2011). Multiview image blending in the C6. Poster presented at the 8th Annual Emerging Technologies Conference, Ames, IA.
- 35. Gilbert, S., **Kelly, J.W.**, *Burton, M., *Pollock, B., de la Cruz, J. (2011). What does your brain do with bad stereoscopic 3D? Talk presented at *I/ITSEC*, Orlando, FL.
- 34. Greenauer, N., Mello, C., Avraamides, M.N. & **Kelly, J.W.** (2011). The influence of existing knowledge structures on the formation of integrated spatial memories. Poster presented at the *Psychonomic Society 52nd Annual Meeting*, Seattle, WA.
- 33. **Kelly, J.W.** Sturz, B.R. & *Hughes, L.A. (2011). Environmental Cues to Reference Frame Selection: Room Axes and Surfaces. Poster presented at the *Psychonomic Society 52nd Annual Meeting*, Seattle, WA.

- 32. *Marsh, W.E., Oliver, J., Dark, V.J. & **Kelly, J.W.** (2011). The cognitive implications of seminatural locomotion. Poster presented at the 8th Annual Emerging Technologies Conference, Ames, IA.
- 31. *Marsh, W.E., **Kelly, J.W.**, Dark, V.J. & Oliver, J. (2011). Assessing the use of cognitive resources in virtual reality. Poster presented at *HCI International*, Orlando, FL.
- 30. **Kelly, J.W.** & Avraamides, M.N. (2010). Cross-modal influence of reference frames in spatial memory. Talk presented at the *Psychonomic Society 51st Annual Meeting*, St. Louis, MO.
- 29. **Kelly, J.W.** & *Khounlavouth, A. (2010). Reference frames influence landmark selection: Evidence from overshadowing. Talk presented at *Spatial Cognition 2010*, in Mt. Hood, OR.
- 28. **Kelly, J.W.**, Avraamides, M.N. & McNamara, T.P. (2010). Reference frames influence spatial memory development within and across sensory modalities. Talk presented at *Spatial Cognition* 2010, in Mt. Hood, OR.
- 27. *Marsh, W.E., Oliver, J., Dark, V.J. & Kelly, J.W. (2010). The cognitive implications of seminatural locomotion. *World Conference on Innovative Virtual Reality*, Ames, IA.
- 26. **Kelly, J.W.** & McNamara, T.P. (2009). Reference directions during the development of spatial memories. Poster presented at the *Psychonomic Society* 50th Annual Meeting, Boston, MA.
- 25. **Kelly, J.W.** & McNamara, T.P. (2009). Use of geometric and non-geometric cues to maintain orientation during locomotion. *Annual Interdisciplinary Conference*, Jackson, WY.
- 24. **Kelly, J.W.**, Calderwood, M., McNamara, T.P. & Bodenheimer, B. (2009). The contributions of self-motion cues and room shape during navigation through virtual environments. Poster presented at the *Symposium on Applied Perception in Graphics and Visualization*, Crete.
- 23. Calderwood, M., **Kelly, J.W.**, McNamara, T.P. & Bodenheimer, B. (2009). Adding head tracking to desktop virtual reality with the Wii remote as an aid to spatial cognition. Poster presented at the *Symposium on Applied Perception in Graphics and Visualization*, Crete.
- 22. Avraamides, M.N., **Kelly, J.W.** & Shimi, A. (2008). Alignment effects in linguistically-encoded environments. Poster presented at the *Psychonomic Society* 49th Annual Meeting, Chicago, IL.
- 21. Avraamides, M.N., **Kelly, J.W.** & Kyranidou, M. (2008). Alignment effects in spatial reasoning about described scenes. Poster presented at the *International Congress of Psychology 29th Annual Meeting*, Berlin, Germany.
- 20. Avraamides, M.N. & **Kelly, J.W.** (2008). Sensorimotor interference in spatial reasoning. Talk presented at the *International Congress of Psychology 29th Annual Meeting*, Berlin, Germany.
- 19. **Kelly, J.W.** & McNamara, T.P. (2008). Spatial memory and spatial orientation. Talk presented at *Spatial Cognition 2008*, Freiburg, Germany.
- 18. **Kelly, J.W.**, McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2008). Geometric and featural cues to maintaining spatial orientation. Poster presented at the *Psychonomic Society* 49th Annual Meeting, Chicago, IL.
- 17. **Kelly, J.W.** & McNamara, T.P. (2007). Response mode differences in perspective taking: Differences in interference or differences in strategy? Poster presented at the *Psychonomic Society* 48th Annual Meeting, Long Beach, CA.

- 16. **Kelly, J.W.** & McNamara, T.P. (2007). Spatial memories of virtual environments. Poster presented at the *Cognitive Sciences Society 29th Annual Meeting*, Nashville, TN.
- 15. **Kelly, J.W.**, Avraamides, M.N. & Loomis, J.M. (2006). Sensorimotor alignment effects when reasoning about immediate and non-immediate environments. Poster presented at the *Psychonomic Society 47th Annual Meeting*, Houston, Texas.
- 14. Avraamides, M.N., **Kelly, J.W.** & Kyranidou, M.N. (2006). The effects of sensorimotor cues on spatial reasoning performance. Talk presented at *Spatial Cognition 2006*, Bremen, Germany.
- 13. Avraamides, M.N. & **Kelly, J.W.** (2006). The effects of sensorimotor cues on spatial reasoning performance. Talk presented at the *International Conference on Spatial Cognition*, Rome, Italy.
- 12. Macuga, K.L., Loomis, J.M., Beall, A.C., Smith, R. & **Kelly, J.W.** (2005). In steering without visual feedback, subjects can properly initiate return phase of a "lane change" maneuver. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- 11. Avraamides, M.N. & **Kelly, J.W.** (2005). Memory organization for spatial layouts learned in virtual reality. Talk presented at the *European Conference for Research on Learning and Instruction*, Nicosia, Cyprus.
- 10. Loomis, J.M., Beall, A.C., **Kelly, J.W.** & Macuga, K.L. (2005). Perceiving and acting in real and virtual environments. Talk presented at the *SPIE Human Vision and Electronic Imaging Conference*, San Jose, California.
- 9. **Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2004). Accurate steering performance with large heading errors on a curving path. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- 8. Loomis, J.M., **Kelly, J.W.**, Beall, A.C. & Bailenson, J.N. (2004). Sensing eye gaze with eccentric viewing. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- 7. Avraamides, M.N. & **Kelly, J.W.** (2004). Imagined perspective-changing within and across novel environments. Talk presented at *Spatial Cognition*, Frauenchiemsee, Germany.
- 6. **Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2003). Postural control without optic flow. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- 5. Avraamides, M.N & **Kelly, J.W.** (2003). Spatial representations from perception and language. *Young Scientist Forum, International Spatial Cognition Summer Institute*, Bad Zwischenahn, Germany.
- 4. **Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2002). Accurate judgments of exocentric direction in large-scale space. Talk presented at the *Vision Sciences Society Meeting*, Sarasota, Florida.
- 3. Caskey, N., Olmstead, R.E., Jarvik, M.E., Madsen, D.C, Iwamoto-Schaap, P.N., Terrace, S.M., **Kelly, J.W.**, Griffith, T. & Wirshing, W.C. (2001). The acute effects of low dose naltrexone in normal heavy smokers. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, Savannah, GA.
- 2. **Kelly, J.W.**, Madsen, D.C., Olmstead, R.E., Jarvik, M.E., Iwamoto-Schaap, P.N. & Shapiro, D. (2000). Prevalence of perceived environmental smoking cues. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, Washington, D.C.

1. Olmstead, R.E., **Kelly, J.W.**, Iwamoto-Schaap, P.N., Madsen, D.C., Huerta, L. & Chhin, C.S. (1999). Acute tolerability of mecamylamine and bupropion combination treatment for smoking cessation. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, San Diego, CA.

TEACHING (AS PRIMARY INSTRUCTOR AT IOWA STATE UNIVERSITY):

- Cognitive Psychology of Human-Computer Interaction, graduate level
- Seminar in Spatial Cognition, graduate level
- Human Factors in Technology, undergraduate level
- Sensation and Perception, undergraduate level

SERVICE:

Psychology Department service:

- Director of Graduate Education (2018-present)
- Graduate Program Committee, chair (2018-present)
- Postdoc Contact Person (2019-present)
- Executive Committee member (2015-2016; 2018-present)
- Committee for Evaluation of Research Teaching and Service (2017-2018)
- Cognitive area faculty search committee member (2017)
- Human subjects review co-chair (2015-2018)
- Psychology Club faculty co-advisor (2012-2018)

Human Computer Interaction Graduate Program service:

- Supervisory committee member (2010-present)
- Faculty search committee member (2010)

University service:

- Governance Document Committee, College of Liberal Arts and Sciences (2019-2020)
- Faculty Senate Representative (2019-2020)
- Office of the Vice President for Research, committee member for internal review of the Virtual Reality Applications Center (2017)

External review:

- External letter writer for three tenure and promotion cases (2018, 2019, 2021)
- External reviewer for undergraduate honors thesis at Swarthmore College, May 2018

Conference program committees:

- IEEE Virtual Reality 2022, review committee member
- Psychonomic Society, review committee member, 2018, 2019
- European Workshop on Imagery and Cognition, program committee member, 2013
- Society for Computers in Psychology conference, assistant program chair, 2009
- Association for Applied Graphics and Visualization conference, program committee member, 2009

Outreach:

- Presentation for "XR Advance" webinar series on virtual and augmented reality, March 2019

PROFESSIONAL AFFILIATIONS:

- American Psychological Association (Member)
- Association for Psychological Science (Fellow)
- Psychonomic Society (Fellow)