Jacqueline M. Fulvio

University of Wisconsin—Madison
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Madison, WI 53706

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Academic History

University of Wisconsin—Madison 2017-present
Research Scientist & Lab Manager
Supervisor: Bradley R. Postle

University of Wisconsin—Madison 2012-2017
Postdoctoral Researcher, Research Specialist
Advisor: Bas Rokers

University of Minnesota – Twin Cities 2009-2012
Postdoctoral Researcher
Advisor: Paul R. Schrater

New York University 2004-2009
Ph.D., Experimental Psychology - Cognition & Perception (quantitative focus)
Advisor: Laurence T. Maloney

Rutgers University – New Brunswick 2000-2004
B.A., Major: Psychology (cum laude with honors distinction); Minor: Biological Sciences
Honors Thesis Advisor: Manish Singh

Publications

Manuscripts currently under review

1. **Fulvio, J.M.** & Postle, B.R. (2025). Effects of TMS on the decoding, electrophysiology, and representational geometry of priority in working memory. Preprint available at *bioRxiv:* https://doi.org/10.1101/2025.09.15.676374

Journal Articles

26. Teng, C., **Fulvio, J.M.,** Pietrelli, M., Jiefeng, J., & Postle, B.R. (2025). Temporal dynamics and representational consequences of the control of processing conflict between visual working memory and visual perception. *Journal of Cognitive Neuroscience,* 1-20. https://doi.org/10.1162/jocn_a_02310

25. **Fulvio, J.M.**, Haegens, S., & Postle, B.R. (2024). Single-pulse TMS affects working-memory performance via posterior beta-band oscillations. *Journal of Cognitive Neuroscience*, *36*(9), 1827-1846. https://doi.org/10.1162/jocn_a_02194

24. Wan, Q., Ardalan, A., **Fulvio, J.M.**, & Postle, B.R. (2024). Representing context and priority in working memory. *Journal of Cognitive Neuroscience*, *36*(7), 1374-1394. https://doi.org/10.1162/jocn_a_02166

23. **Fulvio, J.M.,** Rokers., B., & Samaha, J. (2023). Task feedback suggests a post-perceptual locus of serial dependence. *Journal of Vision, 23*(6), 1-17. https://doi.org/10.1167/jov.23.10.6

22. **Fulvio, J.M.,** Yu, Q., & Postle, B.R. (2023). Strategic control of location and ordinal context in visual working memory. *Cerebral Cortex*, 1-14. https://doi.org/10.1093/cercor/bhad164

21. Cai, Y., **Fulvio, J.M.,** Samaha, J., & Postle, B.R. (2022). Context-binding in visual working memory is reflected in bilateral event-related potentials, but not in contralateral delay activity. *eNeuro* 20 October 2022, *9*(6) ENEURO.0207-22.2022. https://doi.org/10.1523/ENEURO.0207-22.2022

20. Teng, C., **Fulvio, J.M.,** Jiang, J., & Postle, B.R. (2022). Flexible top-down control in the interaction between working memory and perception. *Journal of Vision, 22*(11):3, 1-19, https://doi.org/10.1167/jov.22.11.3

19. **Fulvio, J.M.,** Ji, M., & Rokers., B. (2021). Variations in Sensory Sensitivity Predicts Motion Sickness in Virtual Reality. *Entertainment Computing, 38*:100423, 1-11. https://doi.org/10.1016/j.entcom.2021.100423

18. **Fulvio, J.M.,** Miao, H. & Rokers, B. (2021). Head jitter enhances 3D motion perception. *Journal of Vision, 21*(3):12*,* 1-17. https://doi.org/10.1167/jov.21.3.12

17. **Fulvio, J.M.,** Akinnola, I. & Postle, B.R. (2021). Gender (im)balance in citation practices in cognitive neuroscience*. Journal of Cognitive Neuroscience, 33(1*), 3-7. https://doi.org/10.1162/jocn_a_01643

16. Cai, Y., **Fulvio, J.M.,** Yu, Q., Sheldon, A., & Postle, B.R. (2020). The role of location-context binding in nonspatial visual working memory. *eNeuro 7*(6). https://doi.org/10.1523/ENEURO.0430-20.2020

15. Stanney, K., Lawson, B.D., Rokers, B., Dennison, M., Fidopiastis, C., Stoffregen, T., Weech, S., & **Fulvio, J.M.** (2020). Identifying Causes of and Solutions for Cybersickness in Immersive Technology: Reformulation of a Research and Development Agenda. *International Journal of Human-Computer Interaction, 36*(19), 1783-1803. https://doi.org/10.1080/10447318.2020.1828535

14. **Fulvio, J.M.** & Postle, B.R. (2020). Cognitive Control, Not Time, Determines the Status of Items in Working Memory. *Journal of Cognition*, *3*(1): 8. http://doi.org/10.5334/joc.98

13. **Fulvio, J.M.*,** Ji, M*, Thompson, L., Rosenberg, A. & Rokers, B. (2020). Cue-dependent effects of VR experience on motion-in-depth sensitivity. *Plos One*, *15*(3), e0229929. https://doi.org/10.1371/journal.pone.0229929
**indicates co-first authorship*

12. Rokers, B., **Fulvio, J.M.**, Pillow, J., Cooper, E.A. (2018). Systematic misperceptions of 3D motion explained by Bayesian inference. *Journal of Vision, 18*(3), 1-23. https://doi.org/10.1167/jov.18.3.23

11. **Fulvio, J.M.** & Rokers, B. (2017). Use of Cues in Virtual Reality Depends on Visual Feedback. *Nature Scientific Reports, 7*, Article number: 16009. https://doi.org/10.1038/s41598-017-16161-3

10. Plate, R. C., **Fulvio, J.M.,** Shutts, K., Green, C. S., & Pollak, S. D. (2017). Probability Learning: Changes in Behavior Across Time and Development. *Child development, 89*(1), 205-218. https://doi.org/10.1111/cdev.12718

9. **Fulvio, J.M**., Rosen, M.R., & Rokers, B. (2015). Systematic misperception of 3D motion as a function of sensory uncertainty. *Attention, Perception, & Psychophysics, 77*(5), 1685-1696. https://doi.org/10.3758/s13414-015-0881-x

8**. Fulvio, J.M.,** Maloney, L.T., & Schrater, P.R. (2015). Revealing individual differences in strategy selection through visual motion extrapolation. *Cognitive neuroscience, 6*(4), 169-179. https://doi.org/10.1080/17588928.2014.1003181

7. **Fulvio, J.M.,** Green, C.S., & Schrater, P.R. (2014). Task-specific response strategy selection on the basis of recent training experience. *PLoS Computational Biology, 10*(1), e1003425. https://doi.org/10.1371/journal.pcbi.1003425

6. **Fulvio, J. M.,** Singh, M., & Maloney, L. T. (2009). An experimental criterion for consistency in Interpolation of partly occluded contours. *Journal of Vision, 9*(4):5, 1-19. https://doi.org/10.1167/9.4.5

5. **Fulvio, J.M.,** Singh, M., & Maloney, L.T. (2008). Precision and consistency of contour interpolation. *Vision Research, 48*(6), 831-849. https://doi.org/10.1016/j.visres.2007.12.018

4. Singh, M. & **Fulvio, J.M.** (2007). Bayesian contour extrapolation: Geometric determinants of good continuation. *Vision Research, 47*, 783-798. https://doi.org/10.1016/j.visres.2006.11.022

3. **Fulvio, J.M.** & Singh, M. (2006). Surface geometry influences the shape of illusory contours. *Acta Psychologica, 123*, 20-40. https://doi.org/10.1016/j.actpsy.2006.02.004

2. **Fulvio, J.M.,** Singh, M., & Maloney, L.T. (2006). Combining achromatic and chromatic cues to transparency. *Journal of Vision, 6*(8), 760-776. https://doi.org/10.1167/6.8.1

1. Singh, M. & **Fulvio, J.M.** (2005). Visual extrapolation of contour geometry. *Proceedings of the National Academy of Sciences, 102*(3), 939-944. https://doi.org/10.1073/pnas.0408444102

Conference Proceedings (Refereed)

3. **Fulvio, J.M.,** Singh, M., & Maloney, L.T. (2006). Testing the relatability hypothesis: Inducer offset, not turning angle, is critical for visual interpolation. *Visual Cognition* (Object Perception, Attention, and Memory (OPAM) 2006 Conference Report), 15(1), 83-87.

2. **Fulvio, J.M.,** Singh, M., & Maloney, L.T. (2006). Consistency of location and gradient judgments of visually-interpolated contours. *Computer Vision and Pattern Recognition, Proceedings.*

1. Singh, M., & **Fulvio, J.M.** (2006). Contour extrapolation using probabilistic cue combination. *Computer Vision and Pattern Recognition, Proceedings.*

Chapters

1. **Fulvio, J.M.,** Singh, M. & Maloney, L.T. (2014). Visual interpolation and extrapolation of contours. In Gepshtein, S. & Maloney, L.T. Oxford Handbook of Computational Perceptual Organization. New York: Oxford University Press.

Research Support

Facebook Research Award	September 2018- September 2020
Google Daydream Research Award	May 2018- May 2019
Google Daydream Research Award	September 2017- September 2018

Awards, Honors, Fellowships & Societies

UW-Madison Department of Psychology Research Staff Recognition Bonus, 2022
Society for Neuroscience Trainee Development Award, 2015
McPherson ERI Walsh Travel Award, 2015
Sigma Delta Epsilon Graduate Women in Science Beta Chapter, 2013-present
Douglas & Katherine Fryer Thesis Fellowship, 2008
Student Travel Award, Vision Sciences Society, 2007
Graduate Research Fellowship, National Science Foundation, 2006-2009
Graduate School of Arts & Sciences Travel Award, New York University, 2005
MacCracken Graduate Fellowship, New York University, 2004-2009
Phi Beta Kappa, Rutgers University Chapter, 2004-present
Psi Chi, Rutgers University Chapter, 2003-present
National Society of Collegiate Scholars, Rutgers University Chapter, 2001-present
Rutgers University Alumni Merit Award, Rutgers University Alumni Association, 2002
Rutgers University Outstanding Scholar Award, Rutgers University, 2000-2004
Bloustein Scholar Merit Award, The State of New Jersey, 2000-2003

Professional Activities

Invited Talks

Iowa Attention and Perception Lab weekly talk meeting (Spring 2025), University of Iowa (virtual)

Seminowicz Pain Imaging Laboratory Meeting (Summer 2024), University of Western Ontario (virtual)

Jones Computational Neuroscience Laboratory Meeting (Spring 2023), Brown University (virtual)

HTCondor Week 2022 (Spring 2022), Center for High-Throughput Computing, University of Wisconsin-Madison, WI. [Video]

RIOT Science Club (Spring 2022), King's College London (virtual) [Video]

Perception & Action Seminar, Cognitive, Linguistic, & Psychological Sciences (CLPS) department (Spring 2022) Brown University (virtual)

McPherson Eye Research Institute Seminar (Fall 2021), University of Wisconsin-Madison, WI (virtual)

Human, Animal, and Machine Learning: Experiment and Theory (HAMLET) Seminar (Fall 2020), University of Wisconsin-Madison, WI (virtual)

Biology of Brain and Behavior (BBB) Seminar, Dept of Psychology (Fall 2017), University of Wisconsin-Madison

Oculus Research, (Fall 2016) Redmond, WA

McPherson Eye Research Institute Seminar, (Fall 2015) University of Wisconsin, Madison, WI

Psychology and Neuroscience Brownbag, Dept of Psychology (Summer, 2014) University of Wisconsin, Milwaukee, WI

Psychology Research Experience Program (PREP) for Undergraduates Summer Faculty Talk Series, Dept of Psychology (Summer, 2014) University of Wisconsin, Madison, WI

Center for Cognitive Sciences Colloquium, Dept of Psychology & Center for Cognitive Sciences (Fall, 2010) University of Minnesota, Minneapolis, MN

Perceptual Science Series, Dept of Psychology & Center for Cognitive Science (Spring, 2008) Rutgers University, New Brunswick, NJ

Spatial Cognition & Computation Forum, Department of Psychology (Spring, 2007) University of Texas, Austin, TX

Human and Computer Vision Series, Dept of Psych & Center for Cognitive Science (Fall, 2005) Rutgers University, New Brunswick, NJ

Conference Symposia Organization

Fulvio, J.M. & Schrater, P.R. (2011). Prediction in visual processing. Annual meeting of the Vision Sciences Society (VSS). *Journal of Vision, 11*(11), 22. https://doi.org/10.1167/11.11.22

Conference Presentations (last 5 years)

Hur, J.W., **Fulvio, J.M.**, & Postle, B.R. (2025). The Representation of Ordinal Context in Visual Working Memory. *Annual meeting of the Cognitive Neuroscience Society (CNS)*

Fulvio, J.M., & Postle, B.R. (2025). Gender citation balance reporting four years later: Is it working? *Annual meeting of the Cognitive Neuroscience Society (CNS)* [invited symposium talk]

Fulvio, J.M., & Postle, B.R. (2024). Neural transformations supporting the representation of context and priority in visual working memory. *Annual meeting of the Society for Neuroscience (SfN).*

Fulvio, J.M., Davidson, A., Abdaliziz, M. & Postle, B.R. (2024). The influence of top-down control and storage dynamics on interactions between items held in working memory. *4th International Conference on Working Memory (ICWM).*

Fulvio, J.M., & Postle, B.R. (2024). The influence of top-down control and storage dynamics on interactions between items held in working memory. *Annual meeting of the Cognitive Neuroscience Society (CNS).*

Wan, Q., Ardalan, A., **Fulvio, J.M.**, & Postle, B.R. (2023). Representation of context and priority in working memory (in silico and in vivo). *Annual meeting of the Society for Neuroscience (SfN).*

Fulvio, J.M., Haegens, S., & Postle, B.R. (2022). Single-pulse TMS affects working memory performance via posterior beta band oscillations. *Annual meeting of the Society for Neuroscience (SfN).*

Ding, Y., **Fulvio, J.M.**, Pietrelli, M., & Postle, B.R. (2022). When are task-irrelevant features actively encoded into visual working memory? *Annual meeting of the Society for Neuroscience (SfN).*

Teng, C., **Fulvio, J.M.,** Pietrelli, M., Jiang, J., & Postle, B.R. (2022). Investigating the effects of control signals on subsequent-trial performance. *Annual meeting of the Society for Neuroscience (SfN).*

Fulvio, J.M., Yu, Q., & Postle, B.R. (2022). Strategic control of location and ordinal context in visual working memory. *Annual meeting of the Cognitive Neuroscience Society (CNS).*

Teng, C., **Fulvio, J.M.,** Jiang, J., & Postle, B.R. (2021 - virtual). Flexible top-down control in the interaction between working memory and perception. *Annual meeting of the Society for Neuroscience (SfN).*

Fulvio, J.M., Akinnola, I., & Postle, B.R. (2020 - virtual). Gender (im)balance in citation practices in cognitive neuroscience. *Neuromatch Virtual Conference.*

Fulvio, J.M., Haegens, S., Rose, N.S., & Postle, B.R. (2020 - virtual). Decomposition of EEG reveals a diversity of beta-band responses to a single pulse of TMS. *Annual meeting of the Cognitive Neuroscience Society (CNS).*

Ad Hoc Reviewing

Journal of Experimental Psychology – General ● *Journal of Vision* ● *Perception* ● *Vision Research* ● *Transactions on Applied Perception* ● *PLOS Computational Biology* ● *Scientific Reports* ● *Current Biology* ● *Entertainment Computing* ● *Journal of Neuroscience* ● *Journal of Cognitive Neuroscience* ● *Nature Communications* ● *Heliyon* ● *Frontiers in Human Neuroscience* ● *Memory and Cognition*

Teaching

NTP701: Experimental Design and Statistical Methodology 2021-2025
Guest instructor of 'Beyond Classical Statistics' lecture, Graduate-level summer course at UW-Madison

Basic Statistics for Psychology 2013-2015, 2023
Instructor, Undergraduate course at UW-Madison

Introduction to Psychology 2015-2017
Instructor, Undergraduate course at Madison Area Technical College,

Research Mentor Training 2015-2018
Facilitator, 10-session evidence-based training course for research Mentors of undergraduates in NSF-funded summer UW-Madison Psychology Research Experience Program (PREP)

Basic Statistics for Psychology 2007-2008
Instructor, Undergraduate course at New York University

Mentorship

Undergraduate

UW – Madison NSF Psychology Research Experience Program (PREP)

5. Ileri Akinnola (Summer 2020) – Florida State PhD program (Fall 2022)
4. Melissa Schoenlein (Summer 2017) – UW – Madison PhD program (Fall 2018)
3. Darwin Romulus (Summer 2015) – Florida Atlantic University PhD program (Fall 2016)
2. Michelle Wang (Summer 2014) – Wright State PhD program (Fall 2015)
1. Monica Rosen (Summer 2013) – University of Nebraska PhD program (Fall 2014)

Professional Experience

Editorial Administrator, *Journal of Cognitive Neuroscience* 2022-present

Outreach Specialist: UW - Madison Psychology Research Experience Program for Undergraduates (PREP) Program coordinator (NSF) 2015-2018

Post-baccalaureate Research Assistant, Rutgers University 2004

Professional Development/Training

Research Mentor Training 2013-2015, 2020
Summer course as part of UW-Madison Department of Psychology PREP program, based on the *Entering Mentoring* Series

Professional Affiliations

Vision Sciences Society ● Society for Neuroscience ● Cognitive Neuroscience Society

University Service

UMN Center for Cognitive Sciences Executive council postdoctoral representative, 2011-2012
UMN Perception Group organizer, 2011- 2012

NYU Student Brown Bag Coordinator, 2006- 2007

Workshop Attendance

European Summer School for Visual Neuroscience, Germany, September 3-15, 2006