

## Matthew F. Panichello

### CONTACT

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### EDUCATION

<b>PhD   Princeton University</b> Neuroscience Advisors: Tim Buschman & Nick Turk-Browne	2020
<b>BS   Boston College</b> Psychology, <i>summa cum laude</i> Programs: Premedical; Western Philosophy	2011

### RESEARCH POSITIONS

<b>Postdoctoral Fellow, Stanford University</b> Advisor: Tirin Moore	2021-
<b>Research Coordinator, Massachusetts General Hospital (MGH)</b> Advisor: Moshe Bar	2011-2013
<b>Undergraduate Researcher, MGH &amp; Boston College</b> Advisor: Lisa Feldman Barrett	2008-2011
<b>Advanced Study Grant Fellow, Columbia University</b> Advisor: Tor Wager	2009

### FELLOWSHIPS AND GRANTS

National Defense Science and Engineering Graduate Fellowship	2015-2018
McDonnell Fellow in Neuroscience, <i>Princeton University</i>	2014-2015
Undergraduate Research Fellowship, <i>Boston College</i>	2008-2010
Advanced Study Grant, <i>Boston College</i>	2009

### ACADEMIC HONORS

Best Poster, <i>Princeton Neuroscience Annual Retreat</i>	2019
Peter Gray Award for Creative Achievement in Psychology, <i>Boston College</i>	2011
Phi Beta Kappa, <i>Boston College</i>	2011
Scholar of the College, <i>Boston College</i>	2011

Order of the Cross and Crown, <i>Boston College</i>	2011
Arts & Science Honors Program, <i>Boston College</i>	2007-2011
Psychology Honors Program, <i>Boston College</i>	2010-2011

## TEACHING

NSUR 249: Experimental Immersion in Neuroscience, Guest Lecturer	2021
PSY 255: Cognitive Psychology, Preceptor	2015
NEU 258: Fundamentals of Neuroscience, Preceptor	2014
Foundation Academy Charter School, Volunteer Tutor	2013-2014
Let's Get Ready (free SAT prep), Volunteer Instructor	2008

## STUDENTS ADVISED

Rio Naka, undergraduate (Stanford University)	2024
Jin Oh, post-bacc (Stanford University)	2020-2023
David Mitchell, undergraduate (Princeton University)	2017-2018
Timothy Baum, undergraduate (Princeton University)	2017
Christian Wawrzonek, undergraduate (Princeton University)	2015-2016
David Waldinger, undergraduate (MGH)	2012

## SERVICE & OUTREACH

Stanford Community College Outreach Program	2024
Princeton Neuroscience Curriculum Committee	2014-2015
Princeton Neuroscience Graduate Student Committee, Chair	2014-2015
Psi Chi Psychology Honors Society, Boston College	
President	2010-2011
Member	2008-2010

## INVITED TALKS

UC Berkeley, Knight Lab Meeting	2023
UC Davis, Vision Journal Club	2021
Ruhr University Bochum, Rose Lab Meeting	2021
UC Riverside, Zagha Lab Meeting	2021

## AD-HOC REVIEWER

elife, Nature Communications, PNAS, Journal of Neuroscience, Cerebral Cortex, Scientific Reports, Cortex, Psychonomic Bulletin & Review

## TECHNICAL PROFICIENCIES

Python, PyTorch, MATLAB, Unix, SLURM, JavaScript, HTML, R

## PUBLICATIONS AND MANUSCRIPTS

- Panichello, M.F., Jonikaitis, D., Oh, J., Zhu, S., Trepka, E.B., & Moore, T. (2024). Intermittent rate coding and cue-specific ensembles support working memory. *Nature*, 636, 422-429
- Alleman, M., Panichello, M.F., Buschman, T.J., & Johnston, W.J. (2024). The neural basis of swap errors in working memory. *PNAS*, 121(3)
- Apostel, A., Panichello, M.F., Buschman, T.J., & Rose, J. (2023). Corvids optimize working memory by categorizing continuous stimuli. *Communications Biology*, 6(1), 1122.
- Panichello, M.F., & Buschman, T.J. (2021). Shared mechanisms underlie the control of working memory and attention. *Nature*, 592, 601-605.
- Panichello, M.F., & Turk-Browne, N. (2021). Behavioral and neural fusion of expectation with sensation. *Journal of Cognitive Neuroscience*, 33(5), 814-825.
- Yu, Q., Panichello, M.F., Cai, Y., Postle, B.R., & Buschman, T.J. (2020). Delay-period activity in frontal, parietal, and occipital cortex tracks noise and biases in visual working memory. *PLOS Biology*, 18(9).
- Panichello, M.F., DePasquale, B., Pillow, J.W., & Buschman, T.J. (2019). Error-correcting dynamics in visual working memory. *Nature Communications*, 10(1).
- Panichello, M.F., Kveraga, K., Chaumon, M., Bar, M., & Barrett, L.F. (2017). Internal valence modulates the speed of object recognition. *Scientific Reports*, 7, 361.
- Panichello, M.F., Cheung, O.S., & Bar, M. (2013). Predictive feedback and conscious visual experience. *Frontiers in Psychology*, 3, 620.