Curriculum Vitae

Ian C. Fiebelkorn, Ph.D.

Princeton Neuroscience Institute, Princeton, NJ 08544
phone: 718-808-3865
e-mail: iancf@princeton.edu
web: https://scholar.princeton.edu/iancf/home

Education:

2006–2011	Ph.D., Cognitive Neuroscience, City College of New York, New York, NY Advisors: John J. Foxe, Sophie Molholm Thesis Committee: Steven A. Hillyard, Josh Wallman, Peter Lakatos, Jennifer A. Mangels
1997–2001	B.A. (*Summa Cum Laude*), Neuroscience, Hamilton College, Clinton, NY

Professional Employment:

2016–	Associate Research Scholar, Princeton Neuroscience Institute, Department of Psychology, Princeton University, Princeton, NJ Advisor: Sabine Kastner
2012–2015	Postdoctoral Fellow, Princeton Neuroscience Institute, Department of Psychology, Princeton University, Princeton, NJ Advisor: Sabine Kastner
2011–2012	Postdoctoral Fellow, Departments of Neuroscience and Pediatrics, Albert Einstein College of Medicine, Bronx, NY and Center for Visual and Cognitive Neuroscience, North Dakota State University, Fargo, ND Advisors: John J. Foxe, Mark E. McCourt
2001–2006	Health Economist, RTI International, Research Triangle Park, NC Supervisor: Eric A. Finkelstein

Awards:

2006–2011	CUNY Graduate Center Science Fellowship
2009	CUNY Research Grant for Doctoral Students
2003–2004	RTI International Annual Awards for Outstanding Contributions to Strategic Goals
2004	RTI International Highly Published Author and Outstanding Paper Awards
2001	Senior Prize in Neuroscience, Hamilton College
2000	New York Science Education Program Summer Research Grant, Hamilton College
1997–2001	Dixon-Comstock Scholarship, Hamilton College

Grants and Fellowships:

2013–2016	National Research Service Award (NRSA) for Individual Postdoctoral Fellows (F32), National Eye Institute.
2019	"The role of neural oscillations in coordinating competing cognitive processes." National Science Foundation (pending).

Professional Society Memberships:

2006–	Cognitive Neuroscience Society
2007–	Society for Neuroscience

2007– International Multisensory Research Forum
(Member of the Local Organizing Committee for the 2009 IMRF annual meeting in New York)
2011– Vision Sciences Society

Publications:

Research Papers

1. **Fiebelkorn IC,** Kastner S. Functional specialization in the attention network. *Annu Rev Psychol,* 2020, 71: 11.1-11.29.
2. **Fiebelkorn IC**, Kastner S. The puzzling pulvinar. *Neuron,* 2019, 101(2): 201-203.
3. **Fiebelkorn IC,** Kastner S. A rhythmic theory of attention. *Trends Cogni Sci*, 2019, 23(2): 87-101.
4. **Fiebelkorn IC,** Pinsk MA, Kastner S. The mediodorsal pulvinar coordinates the macaque fronto-parietal network during rhythmic spatial attention. *Nat Commun,* 2019, 10: 215.
5. **Fiebelkorn IC**, Pinsk MA, Kastner S. A dynamic interplay within the frontoparietal network underlies rhythmic spatial attention. *Neuron*. 2018, 99(4): 842-853.
6. Helfrich RF, **Fiebelkorn IC**, Szczepanski S, Parvizi J, Lin JJ, Knight RT, Kastner S. The neural mechanisms of sustained attention are rhythmic. *Neuron*. 2018, 99(4): 854-865.
7. Mercier MR, Molholm S, **Fiebelkorn IC**, Butler JS, Schwartz TH, Foxe JJ. Neuro-oscillatory phase alignment drives speeded multisensory response times: an electro-corticographic (ECoG) investigation. *J Neurosci*. 2015, 35(22): 8546-8557.
8. **Fiebelkorn IC,** Saalmann YB, Kastner S. Rhythmic sampling within and between objects despite attention at a cued location. *Curr Biol*. 2013a, 23(24): 2553-2558.
9. Mercier MR, Foxe JJ, **Fiebelkorn IC**, Butler JS, Schwartz TH, Molholm S. Auditory-driven phase reset in visual cortex: Human electrocorticography reveals mechanisms of early multisensory integration. *NeuroImage.* 2013, 79: 19–29.
10. **Fiebelkorn IC**, Snyder AC, Mercier MR, Butler JS, Molholm S, Foxe JJ. Cortical cross-frequency coupling drives perceptual outcomes. *NeuroImage*. 2013b, 69: 126–137.
11. **Fiebelkorn IC**, Foxe JJ, McCourt ME, Dumas KN, Molholm S. Electrophysiological evidence of atypical category processing and hemispheric asymmetries in children with autism. *Cortex.* 2013c, 49: 1259–1267.
12. Butler JS, Foxe JJ, **Fiebelkorn IC**, Mercier MR, Molholm S. Multisensory representation of frequency across audition and touch: High density electrical mapping reveals early sensory-perceptual coupling. *J Neurosci*. 2012, 32: 15338–15344.
13. Snyder AC, **Fiebelkorn IC**, Foxe JJ. Pitting binding against selection: electrophysiological measures of feature-based attention are attenuated by Gestalt object grouping. *Eur J Neurosci.* 2012, 35(6): 960–967.
14. **Fiebelkorn IC**, Foxe JJ, Butler JS, Mercier MR, Snyder AC, Molholm S. Ready, set, reset: stimulus-locked periodicity in behavioral performance demonstrates the consequences of cross-sensory phase reset. *J Neurosci.* 2011a; 31(27): 9971–9981.
15. **Fiebelkorn IC**, Foxe JJ, Butler JB, Molholm S. Auditory facilitation of visual-target detection persists regardless of retinal eccentricity and despite wide audiovisual misalignments. *Exp Brain Res.* 2011b; 213(2–3): 167–174.
16. Butler JS, Molholm S, **Fiebelkorn IC**, Mercier MR, Schwartz TH, Foxe JJ. Common or separable neural circuits for duration processing across audition and touch. *J Neurosci.* 2011; 31(9): 3400–3406.
17. **Fiebelkorn IC**, Foxe JJ, Molholm S. Dual mechanisms for the cross-sensory spread of attention: how much do learned associations matter? *Cereb Cortex.* 2010a; 20(1): 109–120.
18. **Fiebelkorn IC**, Foxe JJ, Schwartz TH, Molholm S. Staying within the lines: the formation of visuospatial boundaries influences multisensory feature integration. *Eur J Neurosci.* 2010b; 31(10): 1737–1743.
19. Armour B, Finkelstein EA, **Fiebelkorn IC**. State-level Medicaid expenditures attributable to smoking. *Prev Chronic Dis.* 2009; 6(3).
20. Finkelstein EA, **Fiebelkorn IC**, Wang G. The costs of obesity among full-time employees. *Am J Health Promot.* 2005; 20(I1): 45–51.

21. Finkelstein EA, **Fiebelkorn IC**, Corso P. Medical expenditures attributable to injuries—United States, 2000. *JAMA.* (Reprinted from MMWR) 2004; 291(7): 817–818.
22. Finkelstein EA, **Fiebelkorn IC**, Wang G. State-level estimates of annual medical expenditures attributable to obesity. *Obes Res.* 2004; 12(1): 18–24.
23. Finkelstein EA, **Fiebelkorn IC**, Wang G. National medical expenditures attributable to overweight and obesity: how much, and who's paying? *Health Aff.* 2003; W3: 219–226.

Book Chapters

1. **Fiebelkorn IC**, Foxe JJ, Molholm S. "Attention and Multisensory Feature Integration." *The New Handbook of Multisensory Processing* (Second Edition). MIT Press.

Selected First-Authored Abstracts

1. **Fiebelkorn IC**, Pinsk MA, Kastner S. The dorsal pulvinar periodically synchronizes cortical hubs of the attention network, regulating engagement at an attended location. SFN annual meeting, San Diego, CA, 2018.
2. **Fiebelkorn IC**, Pinsk MA, Kastner S. Oscillations in local field potentials and spike times link the attention network to behavior. Cosyne, Salt Lake City, UT, 2017.
3. **Fiebelkorn IC**, Pinsk MA, Kastner S. Neural correlates of rhythmic selective attention. SFN annual meeting, Chicago, IL, 2015.
4. **Fiebelkorn IC**, Saalmann YB, Kastner S. The spreading of attentional selection within an object's visual boundaries is a periodic process. SFN annual meeting, San Diego, CA, 2013.
5. **Fiebelkorn IC**, Snyder AC, Mercier MR, Butler JS, Molholm S, Foxe JJ. Detecting to the beat of your own drum: the phase of low-delta oscillations leads a subject-specific mix of higher frequencies in the determination of visual-target detection. VSS annual meeting, Naples, FL, 2012.
6. **Fiebelkorn IC**, Foxe JJ, Butler JS, Mercier MR, Snyder AC, Molholm S. Investigating mechanisms for multisensory enhancement of visual-target detection: cross-sensory phase reset following the presentation of a temporal cue leads to oscillatory shifts in behavioral performance, SFN annual meeting, San Diego, CA, 2010.
7. **Fiebelkorn IC**, Foxe JJ, Butler JS, Molholm S. Investigating mechanisms for multisensory enhancement of visual-target detection: does temporal information within the auditory modality reset the phase of ongoing oscillations in visual cortex? IMRF annual meeting, Liverpool, UK, 2010.
8. **Fiebelkorn IC**, Foxe JJ, Butler JS, Mercier MR, Frey HP, Molholm S. Investigating multisensory enhancement of visual-target detection: do retinal eccentricity or wide audiovisual misalignments matter? CNS annual meeting, Montreal, Canada, 2010.
9. **Fiebelkorn IC**, Foxe JJ, Schwartz TH, Snyder AC, Blanco D, Molholm S. Multisensory feature integration: does pre-attentive visual object processing modulate the cross-sensory spread of attention? IMRF annual meeting, New York, NY, 2009.
10. **Fiebelkorn IC**, Sehatpour P, De Sanctis P, Thesen T, Devinsky O, Molholm S, Foxe JJ. Pre-attentive processing of auditory stimuli: a human intracranial study of mismatch negativity generators for phonemic and non-phonemic sounds. CNS annual meeting. New York, NY, 2007.

Invited Talks

1. "The neural basis of rhythmic attention." Lecture. Kavli Summer Institute at University of California, Santa Barbara. (6/29/2020).
2. "A theta-rhythmic theory of attention: alternating states that promote either sampling or shifting." Symposium. Cognitive Neuroscience Society Annual Meeting. San Francisco, CA. (3/24/2019).
3. "Rhythmic sampling of the visual environment provides critical flexibility." Symposium. Visual Sciences Society Annual Meeting. St. Pete's Beach, FL. (5/17/2019).
4. "A dynamic interplay within the frontoparietal network underlies rhythmic spatial attention." Symposium. Cognitive Neuroscience Society Annual Meeting. Boston, MA. (3/26/2018).
5. "Rhythmic environmental sampling during selective attention reflects a theta-dependent, push-pull relationship between frontal and parietal cortex." Nanosymposium. Society for Neuroscience Annual Meeting. Washington, D.C. (11/11/2017).

6. “Rhythmic Neural Activity within the Macaque Attention Network Modulates Moment-to-Moment Sampling of the Visual Environment.” Nanosymposium. Society for Neuroscience Annual Meeting. San Diego, California (11/14/2016).
7. “Neural Basis of Rhythmic Selective Attention.” Princeton Oscillation Workshop. Princeton, New Jersey (9/23/2016).
8. “Rhythmic Sampling at Both Cued and Uncued Locations.” Symposium. Vision Sciences Society Annual Meeting. St. Pete Beach, Florida (5/15/2015).
9. “Cortical Cross-frequency Coupling Dramatically Affects Performance during a Taxing Visual-Detection Task.” Symposium. European Conference on Visual Perception. Alghero, Italy (9/3/2012).
10. "Electrophysiological Evidence of Atypical Categorization and Hemispheric Asymmetries in Children with Autism." ANT Burgundy Neuromeeting. Beaune, France (1/27/2012).
11. “Rules Are Made to Be Broken: Multisensory Interactions at Two Stages of Cortical Processing.” Centre de Recherche Cerveau & Cognition (CerCo). Toulouse, France (5/25/2011).
12. "Making Waves: Evoked Periodicity in Visual-Target Detection Demonstrates the Behavioral Consequences of Cross-sensory Phase Reset." Advances in Multisensory Integration Science: The Multisensory Research Network Symposium. Albert Einstein College of Medicine, Bronx, NY (9/17/2010).

Teaching Experience:

2012 Guest Lecturer. “Dynamics in Cognition.” PSY 422/NEU 422, Undergraduate Course, Princeton University.
2014 Guest Lecturer. “Neural Systems and Behavior.” BME, 3815, Graduate Course, City College of New York.
2017 Instructor. Undergraduate Course, “Reading and Understanding Primary Research Articles.” Princeton University.

Reviewing Editor:

European Journal of Neuroscience

Ad-hoc Reviewer:

Brain Topography
Cerebral Cortex
Current Biology
Experimental Brain Research
eLife
Journal of Cognitive Neuroscience
Journal of Neuroscience
Nature Communications
NeuroImage
NeuroReport
Proceedings of the National Academy of Sciences
Scientific Reports
Trends in Cognitive Sciences