Christopher John Honey

Dept of Psychological & Brain Sciences
Johns Hopkins University
3400 N. Charles Street
Baltimore, MD 21211 USA

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Academic Appointments

2024-present	Associate Professor	Johns Hopkins University Department of Psychological & Brain Sciences
2016-2023	Assistant Professor	Johns Hopkins University Department of Psychological & Brain Sciences
2014-2016	Assistant Professor	University of Toronto Department of Psychology
2014-2016	Associate Scientist	Rotman Research Institute Toronto
2009-2013	Postdoctoral Research Associate	Princeton University Department of Psychology & Princeton Neuroscience Institute Advisor: Uri Hasson

Education

2004-2009	Ph.D., Psychology & Cognitive Science	Indiana University, Bloomington Advisor: Olaf Sporns
2003	B.Sc (Hons), Industrial Mathematics	University of Cape Town Advisor: Don Ross
2000-2002	B.Sc, Pure Maths, Applied Maths, English Literature	University of Cape Town

Awards & Honors

2024	Discovery Award, Johns Hopkins University
2020	Discovery Award, Johns Hopkins University
2016	Psychological and Brain Sciences Outstanding Young Alumni Award, Indiana University
2016	Sloan Research Fellowship, Alfred P. Sloan Foundation
2010	James McKeen Cattell Award, New York Academy of Sciences
2009	Kantor Research Prize, Indiana University
2008	J. Stewart & D.K. Riley Graduate Fellowship, Indiana University
2008	Human Brain Mapping Travel Award, NIH
2007-2008	Supplemental Research Fellowship, Indiana University
2003	Honors Scholarship, National Research Foundation of South Africa

Grants

Active Awards

2023-2027
National Science Foundation
Faculty Early Career Development Program (CAREER)
The Neural and Computational Basis of Persistent Mental Contexts
PI: Honey (2 months/year)
Total Amount: $1,089,276

2024-2028
National Institutes of Health
P50 Center Grant
Neurobiology and Cognitive Role of Slow Brain Network Fluctuations
Co-I: Honey (1 month/year)
PI: Schroeder
Total Amount of Subaward: $615,252

2021-2026
National Institute of Mental Health
R01 MH124045

The NKI Rockland Sample II: An Open Resource of Multimodal Brain, Physiology & Behavior Data from a Community Lifespan Sample
PI: Milham. Collaborator: Honey (0.25 months / year)
Total Amount: $3,831,854

2019-2025 National Institute of Mental Health
R01 MH119099
Integrating and separating information sequences in the human cerebral cortex
PI: Honey
Total Amount: $2,395,550

Completed Awards

2021 Johns Hopkins University
Discovery Award
Boosting Progressive Learning in Humans and Machines
PI: Honey
Total Amount: $100,000

2017-2020 Canadian Institutes of Health Research
A novel memory prosthetic: From neuroscience to rehabilitation
Project Grant
Co-PI: Honey. PI: Barense

2017-2019 Center for Aging and Brain Health Initiative
The Hippocamera: A Situationally Aware Memory Prosthetic
Research Clinician Partnership (RCP2)
Collaborator: Honey. PI: Barense
Subaward: US$105,000

2016-2020 National Institute of Mental Health
R01 MH111439-01
Defining Neuronal Circuits and Cellular Processes Underlying Resting fMRI Signals
Co-PI: Honey. Lead PI: Schroeder
Subaward: US$250,000

2016-2019 Alfred P. Sloan Foundation
Sloan Research Fellowship: Neuroscience
PI: Honey
Total Amount: US$55,000

2015-2018	Ontario Brain Institute *Canadian rTMS Treatment and Biomarker Network in Depression (CARTBIND) Trial* Co-Applicant: Honey. Lead PI: Daskalakis Total Amount: CAD$1,387,500
2014-2019	Canadian Foundation for Innovation LOF *Temporal Integration in Human Brain Networks* PI: Honey Total Amount: CAD$100,000
2014-2019	Ontario Research Fund – Small Infrastructure Fund *Temporal Integration in Human Brain Networks* PI: Honey Total Amount: CAD$100,000
2014-2019	NSERC Discovery Grant *Integrating Information Over Time in Human Brain Networks* PI: Honey Total Amount: CAD$145,000
2013-2014	New York University FACES Pilot Entrainment of brain rhythms by electrical stimulation PI: Friedman. Co-I: Honey Total Amount: US$9,000

Journal Publications and Preprints

Google Scholar: https://tinyurl.com/honeyscholar

Papers downloadable at: https://www.honeylab.org/publications/

- Himberger KD, Finn A, **Honey CJ** (in revision) On the automaticity of visual statistical learning. https://www.biorxiv.org/content/10.1101/2022.07.04.498716v1.abstract
- Tomita TM, Barense MD, **Honey CJ** (in revision) The Similarity Structure of Real-World Memories. bioRxiv preprint https://www.biorxiv.org/content/10.1101/2021.01.28.428278v1
- Rahimi Moghaddam S, Bu F, **Honey CJ** (in revision) Learning Representations from Temporally Smooth Data. arXiv preprint https://arxiv.org/abs/2012.06694

- Poldrack RA, Markiewicz CJ, Appelhoff S, Ashar YK, Auer T, Baillet S, Bansal S, Beltrachini L, Benar CG, Bertazzoli G, Bhogawar S et al. (2024) The past, present, and future of the brain imaging data structure (BIDS). *Imaging Neuroscience.*

- Moon JY, Müsch K, Schroeder C, Valiante YA, **Honey CJ** (2024) Fluctuating inter-regional delays in the human cerebral cortex. eLife

- Rahimi Moghaddam S, **Honey CJ**. Boosting Theory-of-Mind Performance in Large Language Models via Prompting (2023). *arXiv* 2304.11490. https://arxiv.org/abs/2304.11490

- **Honey CJ**, Mahabal A, Bellana B (2023) Psychological Momentum. *Current Directions in Psychological Science.* 1-9

- Martin CB, Hong B, Newsome RN, Savel K, Meade M, Xia A, **Honey CJ**, Barense MD (2022) A smartphone intervention that enhances real-world memory and sharpens hippocampal activity in older adults. *Proceedings of the National Academy of Sciences USA* 119 (51), e2214285119

- Bellana B, Mahabal A, **Honey CJ** (2022) Narrative thinking lingers in spontaneous thought. *Nature Communications*. 13, 4585

- Dima DC, Tomita TM, **Honey CJ**, Isik L (2022) Social-affective features drive human representations of observed actions. *Elife* 11:e75027.

- Nastase SA, Liu YF, Hillman H, Zadbood A, Hasenfratz L, Keshavarzian N, Chen J, **Honey CJ**, Yeshurun Y, Regev M, Nguyen M, Chang CHC, Baldassano C, Lositsky O, Simony E, Chow MS, Leong YC, Brooks PP, Micciche E, Choe G, Goldstein A, Vanderwal T, Halchenko YO, Norman KA, Hasson U (2021) Narratives: fMRI data for evaluating models of naturalistic language comprehension. *Scientific Data*.

- Chien HYS, **Honey CJ** (2020) Constructing and Forgetting Temporal Context in the Human Cerebral Cortex. *Neuron. 106 (4): 675-686*

- Müsch K, Himberger KD, Tan KM, Valiante TA, **Honey CJ** (2020) Transformation of Speech Sequences in Human Sensorimotor Circuits. *Proceedings of the National Academy of Sciences USA* 117 (6): 3203-3213

- Woo JH, **Honey CJ**, Moon JY (2020) Phase and amplitude dynamics of coupled oscillator systems on complex networks. *Chaos*. 30(12): 121102.

- Himberger KD, Finn A, **Honey CJ** (2019) Reconsidering the automaticity of visual statistical learning. PsyArXiv: https://doi.org/10.31234/osf.io/r659w.

- Zuo X, **Honey CJ**, Barense MD, Crombie D, Norman KA, Hasson U, Chen J (2019) Temporal integration of narrative information in a hippocampal amnesic patient. *NeuroImage* 213, 116658

- Huffman G, Pratt J, **Honey CJ** (2018). Serial dependence transfers between perceptual objects. bioRxiv preprint https://www.biorxiv.org/content/early/2017/07/19/165399

- Holdgraf C, Appelhoff S, Bickel S, Bouchard K, D'Ambrosio S, David O, et al. iEEG-BIDS, extending the brain imaging data structure specification to human intracranial electrophysiology (2019) *Scientific Data*. 6:4

- Haufe S, DeGuzman P, Henin S, Arcaro MJ, **Honey CJ**, Hasson U, Parra LC (2018) Elucidating relations between fMRI, ECoG, and EEG through a common natural stimulus (2018) *NeuroImage 179*: 79-91.

- Himberger KD, Chien HYS, **Honey CJ** (2018). Principles of Temporal Processing Across the Cortical Hierarchy. *Neuroscience* 389: 161-174.

- Davidesco I, Thesen T, **Honey CJ**, Melloni L, Doyle W, Devinsky O, et al. (2018) Electrocorticographic responses to time-compressed speech vary across the cortical auditory hierarchy. *bioRxiv*, 354464: https://doi.org/10.1101/354464

- Vodrahalli K, Chen PH, Liang Y, Baldassano C, Chen J, Yong E, **Honey CJ**, Hasson U, Ramadge P, Norman KA, Arora S (2018). Mapping between fMRI responses to movies and their natural language annotations. *Neuroimage*, 180, 223-231.

- Müsch K, **Honey CJ** (2018, Commentary). Causal Evidence for a Neural Component of Spatially Global Hemodynamic Signals. *Neuron*, 97(4): 734-736.

- Keller CJ, Huang Y, Herrero JL, Fini M, Du V, Lado F, **Honey CJ**, Mehta A. (2018). Induction and quantification of excitability changes in human cortical networks. *Journal of Neuroscience*: 1088–17

- **Honey CJ**, Newman EL, Schapiro AC (2017). Switching between internal and external modes: a multi-scale learning principle. *Network Neuroscience*. 1 (4): 339–356

- **Honey CJ**, Valiante T (2017, Commentary). Neuroscience: When a Single Image Can Cause a Seizure. *Current Biology*, 27(10), R394-R397

- Groppe DM, Bickel S, Dykstra AR, Wang X, Mégevand P, Mercier MR, Lado FA, Mehta AD, **Honey CJ** (2017) iELVis: An open source MATLAB toolbox for localizing and visualizing human intracranial electrode data. *Journal of Neuroscience Methods*. 281:40-48

- Lositsky O, Chen J, Toker D, **Honey CJ**, Poppenk JL, Hasson U, Norman KA (2016) Neural Pattern Change During Encoding of a Narrative Predicts Retrospective Duration Estimates. *eLife* 5:e16070

- Simony E, **Honey CJ**, Chen J, Lositsky O, Yeshurun Y, Wiesel A, Hasson U (2016) Dynamic reconfiguration of the default mode network during narrative comprehension. *Nature Communications* 7 (12141)

- Gaiteri C, Mostafavi S, **Honey CJ**, De Jager PL, Bennett DA (2016) Molecular, cellular and brain networks in Alzheimer disease . *Nature Reviews Neurology* 12:413-7
- Foster BL, He BJ, **Honey CJ**, Jerbi K, Maier A, Saalmann YB (2016) Spontaneous Neural Dynamics and Multi-scale Network Organization. *Frontiers in Systems Neuroscience*, 10.
- **Honey CJ**, Chen J, Müsch K, Hasson U (2016, Commentary) How Long is Now? The Multiple Timescales of Language Processing. Commentary on "The Now-or-Never Bottleneck: A Fundamental Constraint on Language". *Behavioral and Brain Sciences.* 39
- Chen J, **Honey CJ**, Simony E, Arcaro MJ, Norman KA, Hasson U (2015) Real-life information persists intrinsically and for many minutes in high-order cortical regions. *Cerebral Cortex*. 26(8):3428-3441
- Chen J, Hasson U, **Honey CJ** (2015, Preview). Processing Timescales as an Organizing Principle for Primate Cortex. *Neuron*, 88(2):244-6.
- Hasson U, Chen J, **Honey CJ** (2015) Hierarchical process memory: memory as an integral component of information processing. *Trends in Cognitive Sciences*. 19(6):304-313
- Schmälzle R, Häcker F, **Honey CJ**, Hasson U (2015) Engaged listeners: Shared neural processing of powerful political speeches. *Social Cognitive and Affective Neuroscience*. 10(8): 1137-43
- Ames DL, **Honey CJ**, Chow MA, Todorov A, Hasson U (2015) Contextual alignment of Cognitive and Neural Dynamics. *Journal of Cognitive Neuroscience*. 27(4):655-64
- Arcaro MJ, **Honey CJ**, Mruczek REB, Kastner S, Hasson U (2015) Widespread correlation patterns of fMRI signal across visual cortex reflect eccentricity organization. *eLife* 2015;4:e03952
- Silbert LJ, **Honey CJ**, Simony E, Poeppel D, Hasson U (2014) Coupled neural systems underlie the production and comprehension of naturalistic narrative speech. *Proceedings of the National Academy of Sciences, USA*, 111(43):E4687-96
- Lerner Y, **Honey CJ**, Katkov M, Hasson U (2014) Temporal scaling of neural responses to compressed and dilated natural speech. *Journal of Neurophysiology* 111(12):2433-44
- Keller CJ, **Honey CJ**, L Entz, Bickel S, Groppe D, Tóth E, Ulbert I, Lado F, Mehta AD (2014) Cortico-cortical evoked potentials reveal projectors and integrators in human brain networks. *Journal of Neuroscience* 34(27):9152-63
- Keller CJ, **Honey CJ**, Mégevand P, Entz L, Ulbert I, Mehta AD (2014) Mapping human brain networks with cortico-cortical evoked potentials. *Philosophical Transactions of the Royal Society B*, 369 (1653): 20130528
- Miller KJ, **Honey CJ**, Hermes D, Rao RPN, denNijs M, Ojemann JG (2014) Broadband changes in the cortical surface potential track activation of functionally diverse neuronal populations. *NeuroImage*, 85(2):711-720
- Regev M, **Honey CJ**, Simony E, Hasson U (2013) Selective and invariant neural responses to spoken and written narratives. *Journal of Neuroscience*, 33(4):15978-15988

- Stephens G, **Honey CJ**, Hasson U (2013) A Place for Time: The Spatiotemporal Structure of Neural dynamics During Natural Audition. *Journal of Neurophysiology*, 110(9):2019-26
- Schmälzle R, Häcker R, Rennera B, **Honey CJ**, Schupp HT (2013) Neural correlates of risk perception during real-life risk communication. *Journal of Neuroscience*, 33(25): 10340-7
- Sporns O, **Honey CJ** (2013, Commentary) Topographic Dynamics in the Resting Brain *Neuron*, 78(6): 955-956
- Keller CJ, Bickel S, **Honey CJ**, Groppe D, Entz L, Craddock R, Lado F, Kelly C, Milham MP, Mehta AD (2013) Neurophysiological investigation of spontaneous correlated and anticorrelated fluctuations of the BOLD signal. *Journal of Neuroscience*, 33(15): 6333-42
- **Honey CJ***, Thompson CR*, Lerner Y, Hasson U (2012) Not Lost in Translation: Neural Responses Shared across Languages. *Journal of Neuroscience*, 32(44): 15277-83
- **Honey CJ**, Thesen T, Donner TH, Silbert LJ, Carlson CE, Devinsky O, Doyle WK, Rubin N, Heeger DJ, Hasson U (2012) Slow Dynamics in Human Cerebral Cortex and the Accumulation of Information over Long Timescales. *Neuron*, 76(2): 423-434
- Miller KJ, Foster BL, **Honey CJ** (2012, Opinion) Does rhythmic entrainment represent a generalized mechanism for organizing computation in the brain? *Frontiers in Computational Neuroscience*, 6 (85)
- Miller KJ, Hermes D, **Honey CJ**, Hebb AO, Ramsey NF, Knight RT, Ojemann JG, Fetz EE (2012) Human motor cortical activity is selectively phase-entrained on underlying rhythms. *PLoS Computational Biology*, 8(9): e1002655.
- Ben-Yakov A, **Honey CJ**, Lerner Y, Hasson U (2012) Loss of reliable temporal structure in event-related averaging of naturalistic stimuli. *NeuroImage,* 63(1): 501-6
- Hasson U, **Honey CJ** (2012) Future trends in Neuroimaging: neural processes as expressed within real-life social contexts. *NeuroImage*, 62(2): 1272-8.
- Lerner YL, **Honey CJ**, Silbert LJ, Hasson U (2011) Topographic mapping of a hierarchy of temporal receptive windows using a narrated story. *Journal of Neuroscience,* 31(8):2906-15
- Miller KJ, Hermes D, **Honey CJ**, Sharma M, Rao RP, Den Nijs M, Fetz EE, Sejnowski TJ, Hebb AO, Ojemann JG, Makeig S, Leuthardt EC (2010). Dynamic modulation of local population activity by rhythm phase in human occipital cortex during a visual search task. *Frontiers in Human Neuroscience*, 4: 197.
- **Honey CJ**, Thivierge JP, Sporns O. (2010) Can structure predict function in the human brain? *NeuroImage*, 52(3): 766-776.
- Hagmann P, Cammoun L, Gigandet X, Gerhard S, Ellen Grant P, Wedeen V, Meuli R, Thiran JP,**Honey CJ,** Sporns O (2010) MR connectomics: Principles and challenges. *Journal of Neuroscience Methods*, 194(1): 34-35

- **Honey CJ**, Sporns O, Cammoun L, Gigandet X, Thiran JP, Meuli R, Hagmann P (2009) Predicting Human Resting-State Functional Connectivity from Structural Connectivity. *Proceedings of the National Academy of Sciences, USA*, 106 (6): 2035-40
- Riedl V, **Honey CJ** (2008, Commentary) Alzheimer's disease: a search for broken links. *Journal of Neuroscience*, 28 (33): 8148-9
- Hagmann P, Cammoun L, Gigandet X, Meuli R, **Honey CJ**, Wedeen VJ, Sporns O (2008) Mapping the Structural Core of Human Cerebral Cortex. *PLoS Biology*, 6 (7), e159
- **Honey CJ**, Sporns O (2008) Dynamical Consequences of Lesions in Cortical Networks. *Human Brain Mapping*, 29 (7): 802-9
- Sporns O, **Honey CJ**, Kötter R (2007) Identification and Classification of Hubs in Brain Networks. *PLoS ONE*, 2(10): e1049
- **Honey CJ**, Kötter R, Breakspear M, Sporns O (2007) Network Structure of Cerebral Cortex Shapes Functional Connectivity on Multiple Time Scales. *Proceedings of the National Academy of Sciences, USA*. 104(24): 10240-5
- Townsend JT, **Honey CJ** (2007) Consequences of Base Time for Redundant Signals Experiments. *Journal of Mathematical Psychology*, 51 (4): 242-265
- Sporns O, **Honey CJ** (2006, Commentary) Small Worlds in Big Brains. *Proceedings of the National Academy of Sciences, USA* 103(51): 19219-20

Refereed Conference Papers

- Armeni K, **Honey CJ**, Linzen T (2022) Short-term memory in neural language models. *Conference on Natural Language Learning (CoNLL)*, 2022

- Chien HY, Turek JS, Beckage N, Vo VA, **Honey CJ**, Willke TL. (2021) Slower is Better: Revisiting the Forgetting Mechanism in LSTM for Slower Information Decay. *International Conference on Machine Learning (ICML)* Workshops 2021. https://arxiv.org/abs/2105.05944

- Chien HYS, Zhang J, **Honey CJ** (2021) Mapping the Timescale Organization of Neural Language Models. *International Conference on Learning Representations*, ICLR 2021. https://arxiv.org/abs/2012.06717

- Vodrahalli SK, Chen P-H, Chen J, Yong E, Honey CJ, Norman K, Ramadge P, Arora S (2016) A Semantic Shared Response Model. *ICML 2016 Workshop on Multi-View Representation Learning (MVRL)*

Book Chapters

- Honey CJ, Chen J (2022) Translation Across Brains and Across Time in Steyn J, editor. *Translation: Crafts, Contexts, Consequences*. Cambridge: Cambridge University Press

Patents

- Honey CJ, Barense M, Martin C, Xia A, Bryan HO, Newsome R, inventors; University of Toronto, assignee. System and method for digital enhancement of hippocampal replay. United States patent US 11,397,774. 2022 Jul 26.

Teaching

2024	AS.200.332 Seminar in Theoretical Neuroscience, *Instructor* Johns Hopkins University
2023	AS.200.313 Models of Mind and Brain, *Instructor* Johns Hopkins University
2023	AS.200.654 Psychological and Brain Sciences Core Topics A, *Co-Instructor* Johns Hopkins University
2023	AS.200.332 Seminar in Theoretical Neuroscience, *Instructor* Johns Hopkins University
2021	AS.200.332 Seminar in Theoretical Neuroscience, *Instructor* Johns Hopkins University
2022	AS.200.654 Psychological and Brain Sciences Core Topics A, *Co-Instructor* Johns Hopkins University
2021	AS.200.332 Seminar in Theoretical Neuroscience, *Instructor* Johns Hopkins University
2020	AS.200.313 Models of Mind and Brain, *Instructor* Johns Hopkins University
2020	AS.290.490 Senior Seminar in Behavioral Biology, Co-*Instructor* Johns Hopkins University
2019	AS.200.655 Psychological and Brain Sciences Core Topics B, *Co-Instructor* Johns Hopkins University
2019	AS.290.490 Senior Seminar in Behavioral Biology, Co-*Instructor* Johns Hopkins University
2019	AS.200.332 Seminar in Theoretical Neuroscience, *Instructor* Johns Hopkins University
2018	AS.200.313 Models of Mind and Brain, *Instructor* Johns Hopkins University
2018	AS.200.655 Psychological and Brain Sciences Core Topics B, *Co-Instructor* Johns Hopkins University

2017	AS.200.313 Models of Mind and Brain, *Instructor* Johns Hopkins University
2017	AS.200.655 Psychological and Brain Sciences Core Topics B, *Co-Instructor* Johns Hopkins University
2017	AS.200.315 Advanced Research Design and Analysis, *Instructor* Johns Hopkins University
2016	PSY493S Cognitive Neuroscience, *Instructor* University of Toronto
2015	PSY471F Computation in Psychology, *Instructor* University of Toronto
2014	PSY493F Cognitive Neuroscience, *Instructor* University of Toronto
2012	Summer School on Film, Game, Emotion and the Brain, *Guest Lecturer* University of Amsterdam
2011	PSY416 Brain Imaging in Cognitive Neuroscience, *Guest Lecturer* Princeton University
2011	Neuroscience of Empathy Summer School, *Guest Lecturer* University of Amsterdam
2006	Research Methods in Psychology, *Instructor* Indiana University
2005	Computer & Statistical Models in Psychology, *Teaching Assistant* Indiana University
2003	Calculus I, *Teaching Assistant* University of Cape Town
2001-2002	Calculus and Linear Algebra, *Departmental Tutor* University of Cape Town

Mentorship and Supervision

Postdoctoral Fellow & Research Scientist Supervision, Johns Hopkins University

- Kristijan Armeni (2020-)
- Tyler Tomita (2018-2023, now at the Applied Physics Lab)
- Buddhika Bellana (2018-2021, now faculty at York University, Toronto)
- Joon-Young Moon (2018-2022, now group leader at Inst. for Brain Science, S. Korea)
- Kathrin Müsch (2016-2018)

Graduate Student Supervision, Johns Hopkins University

- Gio Li (2024-)
- Flory Huang (2023-)
- Gabriel Kressin (2022-)
- Xian Li (2020-)
- Touran Shima Moghaddam (2018-2023, now at IBM AI)
- Kevin Himberger (2016-2021, now at Justice Innovation Lab)
- Hsiang-Yun Sherry Chien (2016-2021, now a researcher at Apple AI)

Postdoctoral Fellow and Research Associate Supervision, University of Toronto

David Groppe (2015-2017, now Ontario Brain Institute entrepreneur)
Kathrin Müsch (2014-2016, now a researcher at Deep Breath Intelligence)

Graduate Student Supervision, University of Toronto

Kevin Himberger (2014-2016)

PhD Thesis Committee, University of Toronto

Kristin Wilson (2014-6)
Alex Barnett (2014-6)
Nikhil Bhagwat (2014-)
Ronald Chu (2014-)
Sara Mahallati (2014-)

PhD Thesis Examination, University of Toronto

Jessica Arsenault (2016)
Kristin Wilson (2016)
Jonathan Erez (2015)
John Anderson (2015)
George Ibrahim (2014)
Aaron Kucyi (2014)

PhD Thesis Examination, External Examiner

Enrico Glerean (2015, Aalto University)
Matthew Balcarras (2015, York University)
George Ibrahim (2015, University of Toronto)

MA Thesis Examination, University of Toronto

Rannie Xu (2015)
Tyler Good (2015)

MA Thesis Committee, University of Toronto

Saba Shahab (2015-6)

Undergraduate Supervision, Johns Hopkins University

Madelein Cheshire (2021-
Natalie Wang (2020-2022)
Hannah Collins-Doijode (2020-2022)
Hirak Park (2019)
Jinhan Zhang (2019-)
Fanjun (Frank) Bu (2018-)
Eduardo Sandoval (2018-)
Liangzhi Li (2017)

Undergraduate Advising, University of Toronto

Helen Liu	(2014-)
Josephine Chan	(2015-6)
Esther Yong	(2015-6)
Davide Crombie	(2014-6)
Aliya Babul	(2015)
Kasra Koushan	(2015)
Eve Zheng	(2014-2015)
Mansi Patel	(2014-2015)
Marzyeh Azimi	(2014-2015)
Shahin Khodaei	(2014-2015)

Undergraduate Advising, Princeton University

Biyang Wang	(2012-13)
Alana D'Alfonso	(2010-2011)
Rebecca Tran	(2010-2011)
Christopher R. Thompson	(2009-2011)

University Service

Johns Hopkins University

2018-2020 Chair of Johns Hopkins Behavioral Biology Program
planned program curriculum; managed budget; met with donors; advised undergraduates; oversaw hiring of new lecturers; oversaw new job resources for undergraduates

2014- Advising undergraduates in PBS (~ 6 per year)
2018- Judge at DREAMS for BS Honors in Behavioral Biology
2022 Co-Organizer of PBS Retreat

PhD Dissertation and GBO Committee Member

Yun-Fei Liu (PBS)
Rolando Masis-Obando (PBS, Princeton University)
Clarice Diebold (PBS)
Asieh Zadbood (PBS, Princeton University)
Giuila Elli (PBS, Alternate)
Matthias Lalisse (PBS)
Shailee Jain (UT Austin)
Grusha Prasad (Cognitive Science)
Hexin Liang (Neuroscience)

Kurt Fraser (PBS)
Tara Ghazi (PBS)
Te Jones (PBS)

Qualifying Exam Member
Clarice Diebold (PBS)
Te Jones (PBS)
Iven Yu (PBS)
Natalia Khodayari (PBS)
Yoonjung Lee (PBS)

University of Toronto
2014-2016 Ebbinghaus Empire Colloquium Series Organizer
2014-2016 Psychology Department Neuroimaging Committee
2014-2016 Psychology Department Museum Committee
2014-2016 Psychology Department Website Committee

Princeton University
2011-2013 Chair of Princeton Postdoctoral Association
2011 Judge for Princeton Undergraduate Research Symposium

Reviewing and Editing

Grant Reviewer
National Science Foundation (USA)
The Wellcome Trust (UK)
US-Israel Binational Science Foundation
National Science and Engineering Research Council (Canada)
Swiss National Science Foundation (Switzerland)

Associate Editor
Network Neuroscience (2017-)

Guest Associate Editor
PNAS (2020-)
eLife (2017 - 2020)
PLoS Computational Biology (2015-2017)

Manuscript Reviewer
Adaptive Behavior
Behavioral Neuroscience
Brain and Behavior
Brain Connectivity

Behavior Research Methods
Chaos
Cerebral Cortex
Cortex
Current Biology
eLife
eNeuro
Frontiers in Neuroinformatics
Frontiers in Systems Neuroscience
Journal of Alzheimer's Disease
Journal of Mathematical Psychology
Journal of Neuroscience
Journal of Neuroscience Methods
Memory and Cognition
Nature
Nature Neuroscience
Network Neuroscience
NeuroImage
Neuron
Neuroscience and Biobehavioral Reviews
Philosophical Transactions of the Royal Society B
Proceedings of the National Academy of Sciences of the USA
Psychonomic Bulletin and Review
Psychological Review
PLoS Biology
PLoS Computational Biology
PLoS ONE
Science
Scientific Reports
Topics in Cognitive Science
Trends in Cognitive Sciences

Professional Society Memberships

Memory Disorders Research Society
Society for Neuroscience
Cognitive Neuroscience Society

Professional Training

2009 Society for Neuroscience Short Course: Rhythms of the Neocortex, San Diego
2008 Marie Curie European School in Neuroscience, Santo Stefano di Sessanio, Italy
2007 Methods in Computational Neuroscience, Marine Biological Laboratory, Woods Hole
2005 Complex Systems Summer School, Santa Fe Institute, Santa Fe

Workshop, Symposium and Conference Organizing

2018- Organizer, Computational and Cognitive Neuroscience Summer School, Suzhou, China
2019 Organizer, Workshop on Temporal Context and Compositionality, NeurIPS, Vancouver, Canada
2017 Organizer, Perception and Learning of Temporal Structure in Sensory Streams, *COSYNE Workshop*, Salt Lake City, UT
2014 Co-Organizer, Multimodal investigation of large-scale brain dynamics: Combining fMRI and Intracranial EEG, *Society for Neuroscience Annual Meeting Minisymposium*, Washington DC

Selected Invited Talks

2024 Timescales of Mental and Neural Context. Invited Address and Symposium. *Association for Psychological Science (APS) Annual Convention*, San Francisco. May 2024
2023 Timescales of Mental and Neural Context. *Institute for Brain Science, Korea*. November 2023
2023 Timescales in Natural and Artificial Intelligence. *Columbia University*. Theory Colloquium. September 2023
2023 Timescales of Context in the Mind and Brain. *CogHear 2023*. University of Maryland. June 2023
2022 Timescales in Natural and Artificial Intelligence. *University of Michigan*. Functional MRI Speaker Series. November 2022
2022 Timescales in Natural and Artificial Intelligence. *Dartmouth College*. Colloquium Series. November 2022
2021 Timescales in Natural and Artificial Intelligence. *Stanford University*. Cognitive Neuroscience FriSem. May 2021
2021 Timescales in Natural and Artificial Intelligence. *The Learning Salon*. (https://www.learningsalon.ai) May 2021
2021 Timescales in Natural and Artificial Intelligence. *Memory: It's About Time.* Spring Memory Conference. University of California, Riverside. May 2021
2021 Constructing and Forgetting Temporal Context. *Cognitive Neuroscience Seminar,* George Mason University, April 2021
2021 A Neuroscience of Narratives. *McGill University*, Neuroscience of the Self and Pathways to Resilience in Health and Disease, February (2021)
2020 Constructing and Forgetting Temporal Context. *Cognitive Neuroscience Seminar, University Medical Center Hamburg*, April 2020.
2020 Constructing and Forgetting Temporal Context. *Cognition and Perception Seminar, New York University*, February 2020.
2019 Constructing and Forgetting Temporal Context. *Cognitive Neuroscience of Memory Seminar*. University of Pennsylvania. Philadelphia, PA. September 6, 2019

2019 Hierarchical Processing in Perception and Memory. *Neurosurgery Rounds.* Mayo Clinic, Rochester MN, August 15, 2019
2018 Hierarchical Timescales of Perception and Memory, *University of Texas at Austin*, Austin, TX
2018 Hierarchical Timescales of Perception and Memory, *MIND Summer School,* Hanover NH
2018 Hierarchical Timescales of Perception and Memory, *CCN Summer School,* Suzhou, China
2018 Large Scale Brain Networks and Dynamics, *CCN Summer School,* Suzhou, China
2018 Temporal Hierarchies in Human Cerebral Cortex, *Vision Sciences Society Annual Meeting – Symposium on Temporal Hierarchy*, St Pete Beach, FL
2018 Timescales of the Brain & Mind, *Omega Psi Annual Conference*, Baltimore, MD
2017 Hierarchical Timescales of Dynamics and Information Processing in the Human Brain, *NIH Neuroimaging Colloquium Series*, Bethesda, MD
2017 Timescales of Brain Function, *Dartmouth MIND Summer School*, Hanover, NH
2017 Fast and Slow Information Processing for Real World Cognition, *Indiana University*, Psychological & Brain Sciences Colloquium Series, Bloomington IN
2017 Stimulus Locked Network Dynamics, *University of Alabama, Birmingham*, Visual Brain Core Online Colloquium Series
2017 Fast and Slow Information Processing for Real World Cognition, *Baylor College of Medicine*, Neurosurgery Online Colloquium Series
2016 Timescales of Perception and Memory, Department of Psychology Talk, *University of Toronto*, Toronto, ON
2016 Perception and Memory of Spoken Sentences, *10th International Conference on Advances in Electrocorticography*, San Diego, CA
2016 Perception and Memory of Spoken Sentences, Princeton Oscillations Workshop, *Princeton University*, Princeton, NJ
2016 How Do We Integrate Information Over Time? *Johns Hopkins University*, Baltimore, MD
2016 How Do We Integrate Information Over Time? *Dartmouth College*, Hanover, NH
2016 Rhythmic regulation and dysregulation of population firing in the human cerebral cortex, *Krembil Research Institute*, Toronto, ON
2015 Rhythmic regulation and dysregulation of population firing in the human cerebral cortex, *Aalto University*, Helsinki
2015 Multi-scale processing of natural speech in distributed brain networks. Decoding of Sound & Brain Conference, *Ecole Normale Superieure*, Paris
2015 How to Construct a Brain Network from MRI Data, *International Society for Magnetic Resonance in Medicine*, Toronto, ON
2015 Organization of Large-Scale Neural Circuits for Real-World Cognition. *University of Ottawa*, Ottawa, ON
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Western University,* London, ON
2013 Fast and Slow Information Processing for Real-World Cognition, *University of Pennsylvania*, Philadelphia, PA

2013 Fast and Slow Information Processing for Real-World Cognition, *Stanford University*, Palo Alto, CA
2013 Fast and Slow Information Processing for Real-World Cognition, *University of California at Irvine*, Irvine, CA
2013 Fast and Slow Information Processing for Real-World Cognition, *Dartmouth University*, Hanover, NH
2013 Fast and Slow Information Processing for Real-World Cognition, *Johns Hopkins University*, Baltimore, MD
2012 Fast and Slow Information Processing for Real-World Cognition, *University of Toronto*, Toronto, ON
2012 Fast and Slow Information Processing for Real-World Cognition, *Rutgers University,* Newark, NJ
2012 Organization of Large-Scale Neural Circuits for Real-World Behavior, Sackler Institute, *Weill Cornell Medical College*, New York, NY
2011 Topography of Suppressing Rhythms in the Cerebral Cortex, *RIKEN Brain Science Institute*, Tokyo
2011 Amplitude-Amplitude Couplings in Electrocorticography, *Stanford University Medical School*, Palo Alto, CA
2011 Hierarchies and History Dependence in Human Cerebral Cortex, Magnetic Resonance Research Center, *Yale Universit*, New Haven, CT
2010 Hierarchies and History Dependence in Human Cerebral Cortex, *University of Washington*, Seattle, WA
2008 Anatomical and Functional Networks in the Human Cerebral Cortex, *Princeton University*, Princeton, NJ

Selected Contributed Talks

2020 Constructing and Forgetting Temporal Context, *NYU Psychology Colloquium Series,* New York, NY
2020 Constructing and Forgetting Temporal Context, *UMC Hamburg,* Hamburg (virtual)
2020 Constructing and Forgetting Temporal Context, *University of Pennsylvania Memory Colloquium Series,* Philadelphia, PA
2019 Similarity Structure of Autobiographical Memory, *Memory Disorders Research Society*, New York, NY
2019 Sequence Learning at Multiple Timescales. *Computational and Cognitive Neuroscience Summer School*. Suzhou, China.
2018 Temporal Hierarchies in the Human Cerebral Cortex, *Vision Sciences Society Annual Meeting Symposium*, St. Pete Beach, FL
2017 Stimulus Locked Network Dynamics, Advanced fMRI Educational Symposium, *Organization for Human Brain Mapping Annual Meeting*, Vancouver, BC
2015 Contributions of control systems and perceptual systems to online memory. *Toronto Western Research Institute*, Toronto, ON
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Neuroimaging Colloquium*, University of Toronto, Scarborough, ON

2014 Large-scale rhythmic suppression in the human cerebral cortex, *Society for Neuroscience Annual Meeting*, Washington DC
2014 Large-scale rhythmic suppression in the human cerebral cortex, *Neuroscience Association for Undergraduate Students Annual Meeting*, University of Toronto, ON
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Neuroimaging Colloquium*, Center for Addiction and Mental Health, Toronto, ON
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Computational Neuroscience Colloquium*, University of Waterloo, Waterloo, ON
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Neuroimaging Rounds*, Rotman Research Institute, Toronto
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Neuroimaging Rounds*, Toronto Western Hospital, Toronto
2014 Large-scale rhythmic suppression in the human cerebral cortex. *Canadian Association for Neuroscience Annual Meeting*, Montreal, Quebec
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Neuroscience Diploma Colloquium Series*, York University, Toronto
2014 Uncovering stimulus-induced network dynamics during narrative comprehension. *Ebbinghaus Empire Colloquium Series*, University of Toronto, Toronto
2011 Amplitude-Amplitude Couplings in Electrocorticography, *COSYNE Meeting*, Salt Lake City
2010 Reliability and Selectivity of BOLD and iEEG Signals, *Princeton Neuroscience Institute Seminar Series*, Princeton University
2010 Linking the Structural & Functional Architectures of the Brain: Computational and Intuitive Models, *Human Brain Mapping*, Barcelona
2010 Hierarchies and History Dependence in Human Cerebral Cortex. *Neuroscience of Social Decision Making Seminar Series*, Princeton University
2008 Predicting Functional Connectivity Using Structural Connectivity, *Human Brain Mapping Conference*, Sydney, Australia
2007 Ongoing Phase Locked Reverberations: How Not to Model Them. *Methods in Computational Neuroscience Course*, Marine Biological Laboratory, Woods Hole
2005 Measures of Structural Complexity in Networks, *Santa Fe Institute Complex Systems Summer School*