# Thomas M. Morin

www.tmMorin.com | tommorin@bu.edu

#### **EDUCATION** Boston University, 2017 – Present

PhD Candidate, Computational Neuroscience Graduate Program in Neuroscience

### **Tufts University**, 2013 – 2017

Bachelor of Science, *magna cum laude*, Thesis Honors Cognitive & Brain Science, Computer Science Senior Honors Thesis: *Optimizing fPET-FDG* 

#### PUBLICATIONS

- **Morin, T.M.,** Ma, W., & Stern, C.E. Differential cortical contributions to continuous perceptual and discrete symbolic reasoning on a one-dimensional raven's progressive matrices task. (*in prep.*)
- **Morin, T.M.,** Chang, A.E., Ma, W., McGuire, J.T. & Stern, C.E. Dynamic network analysis demonstrates the formation of stable functional networks during rule learning. (*Accepted for Publication*).
- Gilbert, T.M., Zurcher, N.R., Wu, C.J., Bhanot, A., Hightower, B.G., Kim, M., Albrecht, D.S., Wey, H.Y., Schroeder, F.A., Rodriguez-Thompson, A., **Morin, T.M.**, Hart, K.L., Pellegrini, A.M., Riley, M.M., Wang, C., Stufflebeam, S.M., Haggarty, S.J., Holt, D.J., Loggia, M.L., Perlis, R.H., Brown, H.E., Roffman, J.L., Hooker, J.M. (2019). PET neuroimaging reveals histone deacetylase dysregulation in schizophrenia. *The Journal of Clinical Investigation*. https://doi.org/10.1172/JCI123743
- Strebl, M.G., Campbell, A., Zhao, W.N., Riley, M.M., Chindavong, P., **Morin, T.M.**, Haggarty, S.J., Wagner, F.F., Ritter, T., Hooker, J.M. (2017). HDAC6 Brain Mapping with [18F]Bavarostat Enabled by a Ru-Mediated Deoxyfluorination. *ACS Central Science*. 3(9), 1006-1014 http://dx.doi.org/10.1021/acscentsci.7b00274
- Placzek, M.S., Zhao, W., Wey, H.Y., **Morin, T.M.**, & Hooker, J.M. (2015). PET neurochemical imaging modes. *Seminars in Nuclear Medicine*, 46(1), 20-27 http://dx.doi.org/10.1053/j.semnuclmed.2015.09.001

## **PRESENTATIONS**

- **Morin, T.M.** Cognitive Neuroscience of Reasoning, *Guest Lecturer, Neural Systems II:* Cognition and Behavior (GRS NE 742) Course. 2021. Boston University. Boston, MA.
- **Morin, T.M.** Intro to Neuroimaging, *Guest Lecturer, Introduction to Cognitive & Brain Science* (PSY 9) Course. 2021. Tufts University. Medford, MA
- **Morin, T.M.** Intro to fMRI, *Guest Lecturer, Introduction to Cognitive & Brain Science (PSY 9) Course*. 2020. Tufts University. Medford, MA
- **Morin, T.M.** Frontoparietal Control Network Contributions to Abstract Reasoning. *Boston University Graduate Program for Neuroscience Annual Retreat*. 2019. Essex, MA
- **Morin, T.M.** Intro to Brain Imaging. *Guest Lecturer, Introduction to Cognitive & Brain Science* (PSY 9) Course. 2018. Tufts University. Medford, MA.
- **Morin, T.M.** Branching Out: What a Tree Can Teach You About Your Brain? *Out For Undergrad Engineering Conference*. 2016. Stanford University, Palo Alto, CA.
- **Morin, T.M.** Creating a Computer Simulation Tool for PET Neuroimaging. *Tufts University Undergraduate Research and Scholarship Symposium*. 2016. Tufts University, Medford, MA.

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- POSTERS Morin, T.M., Ma, W., Chang, A.E., & Stern, C.E. Dynamic functional connectivity during context-dependent rule learning. Organization for Human Brain Mapping. 2020. (Online Meeting, Due to COVID-19)
  - Morin, T.M., Moore, K.N., & Stern, C.E. An fMRI investigation of functional network connectivity during abstract reasoning. Cognitive Neuroscience Society Annual Meeting, 2020. (Online Meeting, Due to COVID-19)
  - Morin, T.M., Chang, A.E., & Stern, C.E. Cortical contributions to perceptual and symbolic reasoning using a one-dimensional raven's progressive matrices task. Society for Neuroscience. 2019. Chicago, IL
  - Ma, W., Morin, T.M., Chang, A.E., & Stern, C.E. An fMRI investigation of medial prefrontal network dynamics during a context-dependent rule learning task. Society for Neuroscience. 2019. Chicago, IL
  - Morin, T.M., Chang, A.E., & Stern, C.E. An fMRI investigation of symbolic processing using a one-dimensional raven's progressive matrices task. Henry I. Russek Student Achievement Day. 2019. Boston University, Boston, MA.
  - Cohen, J.E., Morin, T.M., & Stern, C.E. Theta oscillations at critical junctures of overlapping mazes. Cognitive Neuroscience Society Annual Meeting. 2018. Boston, MA.
  - Morin, T.M. & Wey, H.Y. Optimizing fPET-FDG. Cognitive & Brain Science Senior Symposium. 2017. Tufts University, Medford, MA

HONORS AND AWARDS	2020 2017 2017 2017 2016 2016 2016 2013-2017	Third Prize, BU Grad. Prog. for Neuro. Interview Days Poster Session Honorable Mention, NSF Graduate Research Fellowship Program Joanne Mary Sullivan Prize, Tufts University Psychology Department Barton Term Scholar for Arts and Sciences, Tufts University SpaceX People's Choice Award, Out for Undergrad Engineering Conference Greg Ellenoff Internship Grant, Tufts University Career Center Psi Chi Honor Society, Tufts University Chapter Dean's List, Tufts University (5 semesters)
	2013-2017	Dean's List, Tutts University (5 semesters)

## TRAINING MIT IMPACT Program

Fellow, Spring 2020

#### Department of Psychological & Brain Sciences, Boston University

Cognitive Neuroimaging Lab

PhD Student Researcher, August 2017 – Present

Mentor: Chantal Stern, DPhil

## Department of Psychological & Brain Sciences, Boston University

Attention & Perception Neuroimaging Lab

Lab Rotation & Collaborating Student, November 2017 – August 2018

Mentor: David Somers, PhD

#### A. A. Martinos Center for Biomedical Imaging,

# Massachusetts General Hospital, Harvard Medical School

Hooker Research Group

Research Intern, April 2015 - May 2017

Mentors: Hsiao-Ying Wey, PhD, and Jacob Hooker, PhD

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TRAINING Department of Psychology, Tufts University

(Continued) Memory and Cognition Lab

Undergraduate Research Assistant, May 2014 - May 2015

Mentor: Richard Chechile, PhD

TEACHING EXPERIENCE

**Introduction to Cognitive and Brain Science** 

Teaching Assistant, Spring 2017

Department of Psychology, Tufts University

American Sign Language I, II, and III

Tutor, Fall 2016

Academic Resource Center, Tufts University

ADDITIONAL EXPERIENCE

InGenius Prep | College Admissions Consulting

Graduate Coach, November 2020 - Present

Mentor 2.0, Big Brothers Big Sisters of Massachusetts Bay

Volunteer Mentor to a High School Student: August 2017 - August 2019

**Tufts Psychology Society** 

Class of 2017 Representative, September 2015 - May 2017

## **SKILLS Programming Languages**

- "Fluent" in C, C++, R, Python, MATLAB, Shell Scripting
- Experience with HTML/CSS, Lisp

## **Neuroimaging Software**

FSL, Freesurfer, AFNI, PMOD, Mango

#### **Key Concepts**

- fMRI, PET, and EEG study design, data collection & analysis
- Machine learning and graph-based analysis of functional connectivity data
- Implementation of kinetic models for PET neuroimaging
- Collaboration with theorists to design/test computational models of cognition