

# Johan Nakuci

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## EDUCATION

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- 2016 – 2020      Doctorate of Philosophy, Neuroscience Program, University at Buffalo, Buffalo, NY  
Advisor: Sarah F. Muldoon, PhD  
Thesis: Variability in Healthy and Pathological Populations
- 2014 – 2016      Master of Arts, Biological Sciences, University at Buffalo, Buffalo, NY
- 2005 – 2009      Bachelor of Arts, Biology and Economics, University of Rochester, Rochester, NY  
Minors: Philosophy and International Relations

## RESEARCH EXPERIENCE

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- 2020 – Present      **Georgia Institute of Technology**, Postdoctoral Fellow, Dr. Dobromir Rahnev, School of Psychology
- 2016– 2020      **SUNY-Buffalo**, Doctoral Student, Dr. Sarah Muldoon, Neuroscience Program
- 2014 – 2016      **SUNY-Buffalo**, Research Assistant, Dr. David Shucard, Department of Neurology
- June – Aug 2008      **Harvard University**, Research Assistant, Dr. Bruce Yankner, Department of Pathology
- June – Aug 2007      **Massachusetts Institute of Technology**, Howard Hughes Summer Scholar, Dr. Catherine Drennan, Department of Chemistry
- 2006 – 2008      **University of Rochester**, Research Assistant, Dr. Ian Dickerson, Department of Neurobiology and Anatomy

## OTHER EXPERIENCE

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- 2012 – 2014      **Center for Teaching and Learning in China**, English Teacher, Shenzhen China
- 2011 – 2012      **Innovative Science Solutions**, Scientific Analyst/Data Manager, Morristown, NJ

## PUBLICATIONS

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**Nakuci J**, Rafiei F, Safrin M, Wokke ME, Lau H, Rahnev D. High-frequency TMS desynchronizes global brain connectivity (*In preparation*).

**Nakuci J**, Yeon J, Kim J-H, Kim S-P, Rahnev D. Brain mechanisms of within-individual differences in performance (*In preparation*).

**Nakuci J**, Yeon J, Kim J-H, Kim S-P, Rahnev D. Brain connectivity profiles associated with perceptual task performance (*In preparation*).

**Nakuci J**, Covey TJ, Shucard JL, Shucard DW, and Muldoon SF. Single trial variability: a window into multiple cognitive streams of working memory (*In preparation*).

**Nakuci J**, Garcia JO, Wasylyshyn N, Elliot JC, Cieslak M, Giesbrecht B, Grafton ST, Vettel JM, and Muldoon SF. Within- and between-subject reproducibility and variability in multi-modal, longitudinal brain networks (*In preparation*).

**Nakuci J**, McGuire M, Schweser F, Poulsen D, and Muldoon SF. Differential patterns of change in brain connectivity resulting from traumatic brain injury (*Under review Brain Connectivity*).

Kaliyappan K, **Nakuci J**, Preda M, Schweser F, Muldoon SF, Muththaiah VPK. Correlation of histomorphometric changes with diffusion tensor imaging for evaluation of blast-induced auditory neurodegeneration in chinchilla. *Journal of Neurotrauma* (*in press*).

Cong Y, Slavakis K, **Nakuci J**, Muldoon SF, and Medaglia J. Online Classification of Dynamic Multilayer-Network Time Series in Riemannian Manifolds. *CASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2021.

Cong Y, Slavakis K, **Nakuci J**, Muldoon SF, and Medaglia J. Fast Sequential Clustering in Riemannian Manifolds for Dynamic and Time-Series-Annotated Multilayer Networks. *IEEE Open Journal of Signal Processing* Volume 2, 2021.

Cong Y, Slavakis K, Patil PV, **Nakuci J**, Muldoon SF, and Medaglia J. Network clustering via kernel-ARMA modeling and the Grassmannian: The brain-network case. *Signal Processing* Volume 179, February 2021.

Tran C, Vaiana M\*, **Nakuci J\***, Somarowthu A, Goeff K, Goldstein N, Murthy P, Muldoon SF, and Goldberg E. Interneuron desynchronization precedes seizures in a mouse model of dravet syndrome. *Journal of Neuroscience* 2020; 40(13): 2764-2775.

\*Contributed equally

Bansal K, **Nakuci J**, Muldoon SF. Personalized brain network models for assessing structure-function relationships. *Curr Opin Neurobiol*. 2018; 52:1-13.

## CONFERENCE PRESENTATIONS

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**Nakuci J**, Yeon J, Kim J-H, Kim S-P, Rahnev D (2021). Brain connectivity profiles associated with perceptual task performance. *Association for the Scientific Study of Consciousness*, Tel Aviv Israel

**Nakuci J**, Yeon J, Kim J-H, Kim S-P, Rahnev D (2021). Brain connectivity profiles associated with perceptual task performance. *Vision Science Society*, Tampa Bay FL

**Nakuci J**, Covey TJ, Shucard JL, Shucard DW, Muldoon SF (2020). A single-trial clustering approach to examining neural variability during working memory. *Northeast Regional Conference on Complex Systems*, Buffalo NY

Tong W, **Nakuci J**, Muldoon SF (2020). Robust vs. variable circuitry in human brain networks. *Northeast Regional Conference on Complex Systems*, Buffalo NY

Cong Y, Slavakis K, **Nakuci J**, Muldoon SF, and Medaglia J (2020). Online Multilayer Brain-Network State Clustering. *Northeast Regional Conference on Complex Systems*, Buffalo NY

**Nakuci J**, McGuire M, Schweser F, Poulsen D, Muldoon SF (2019). Changes in Global Brain Connectivity Resulting from Traumatic Brain Injury. *Society for Neuroscience Conference*, Chicago, IL

**Nakuci J**, McGuire M, Schweser F, Poulsen D, Muldoon SF (2019). Changes in Global Brain Connectivity Resulting from Traumatic Brain Injury. *Northeast Regional Conference on Complex Systems*, Binghamton NY

**Nakuci J**, Garcia JO, Wasylyshyn N, Elliot JC, Cieslak M, Giesbrecht B, Grafton ST, Vettel JM, Muldoon SF (2018). Inter-Session Reproducibility of Brain Functional Network Structure in Resting and Task States. *Society for Neuroscience Conference*, San Diego, CA

**Nakuci J**, Garcia JO, Wasylyshyn N, Elliot JC, Cieslak M, Giesbrecht B, Grafton ST, Vettel JM, Muldoon SF (2018). Inter-Session Reproducibility of Brain Functional Network Structure in Resting and Task States. *Northeast Regional Conference on Complex Systems*, Binghamton NY

## TEACHING

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NRS 602

Seminars in Neuroscience

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## **AWARDS AND SCHOLARSHIPS**

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2018, 2019 Beverly Petterson Bishop and Charles W. Bishop Neuroscience Travel Award

2005 – 2009 Rochester Class of 2005 Scholarship

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## **COMMUNITY OUTREACH**

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2014 – 2017 Brain Awareness Week

2014 – 2016 Girl Scouts Go to Neuro School

2014 Brain Bee