

# Sarah A. Cutts

## Curriculum Vitae

### Contact Information

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Indiana University  
Psychological and Brain Sciences  
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Bloomington, IN 47405

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### Education

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- 2020-present      Ph.D. Neuroscience and Psychology, Indiana University, Bloomington  
Committee: Dr. Olaf Sporns (*Advisor*), Dr. Richard Betzel,  
Dr. Anne Krendl, Dr. Daniel Kennedy
- 2014-2019      B.S. Biology, University of Georgia, Athens  
B.S. Psychology, University of Georgia, Athens  
Honors: *magna cum laude*; CURO Research Distinction

### Research Experience

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- 2020-present      *Graduate Student*  
Computational Cognitive Neuroscience Lab  
Psychology Department, Indiana University, Bloomington, IN  
PI: Dr. Olaf Sporns
- 2019-2020      *Lab Technician (Developmental Biology)*  
Eggenschwiler Lab  
Genetics Department, University of Georgia, Athens, GA  
PI: Dr. Jonathan Eggenschwiler
- 2019-2020      *Research Assistant*  
Sensorimotor Neuroscience Lab  
Kinesiology Department, University of Georgia, Athens, GA  
PI: Dr. Tarkeshwar Singh
- 2018-2020      *Undergraduate Research Assistant*  
Primate Cognition and Behavior Lab  
Psychology Department, University of Georgia, Athens, GA  
PI: Dr. Dorothy Fragaszy
- 2017-2019      *Undergraduate Research Assistant*  
Clinical Neuroscience Lab  
Psychology Department, University of Georgia, Athens, GA  
PI: Dr. Lawrence Sweet

## **Grant Funding**

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2023-present NIH T32 Training Program in Integrative Developmental Process

## **Awards & Fellowships**

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2022 NSF GRFP Honorable Mention  
2022 IU Qualifying Exam Commendation  
2022 IU Sharon Stephens Brehm Excellence in Research Award (\$1000)  
2020 IU PBS Departmental Summer Fellowship (\$6000/yr, 5 years)  
2020 IU Rebec Family Neuroscience Fellowship (\$3000/yr, 3 years)  
2019 UGA CURO Research Assistantship (\$1000)

## **Academic Activities**

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\*(Fa) Fall semester; (Sp) Spring semester; (Su) Summer

### **Invited Talks**

2023 Su *Temporal Variability of Brain-Behavior Relationships in Functional Connectivity*  
Oral Session, Organization for Human Brain Mapping

### **Teaching**

2022 Sp P406: Developmental Cognitive Neuroscience  
Teaching Assistant

2023 Sp, 2022 Fa,  
& 2021 Fa P457: The Connected Brain  
Teaching Assistant

### **Departmental Involvement**

2022-present IU PBS Graduate Student Council Representative

2023 Sp IU Precision Developmental Science Faculty Search Committee

2022 Fa Talk: *Insights from Models of the Human Brain*  
Guest lecture for P457, The Connected Brain

2021 Fa Annual Biomedical Research Conference for Minoritized Scientists  
(*IU Graduate Recruiter*)

2021 Fa Society for the Advancement of Chicanos/Hispanics and  
Native Americans in Science (*IU Graduate Recruiter*)

- 2021 Fa                      Talk: *Individual Differences and Connectivity*  
Guest lecture for P457, The Connected Brain
- 2021 Fa                      Poster: *Uncovering Variation of Individual Differences in Fine-Scale  
Dynamics of Functional Connectivity*  
Departmental first-year research symposium

### **Workshops and Courses**

- 2023 Su                      *Whole-brain, Connectome-based Models of Brain Dynamics: From  
Principles to Applications*  
OHBM 2023 Educational Workshop
- 2023 Sp                      *7th Whistler Scientific Workshop on Brain Functional Organization,  
Connectivity, and Behavior*  
Whistler 2023 (virtual)
- 2023 Sp                      *Network Science*  
IU Informatics (audited course)
- 2022 Fa                      *Introduction to Dynamical Systems in Cognitive Science*  
IU Cognitive Science (audited course)
- 2022 Fa                      *Introduction to Complex Systems*  
IU Informatics (audited course)
- 2021 Fa                      *Information Theory Workshop*  
IU Psychological and Brain Sciences

### **Non-Departmental Service**

- 2022-present              NextGen Psych Scholars Program  
Lead Mentor (2023-present); Mentor (2022-2023)
- 2022                          Application Statement Feedback Program (*Editor*)
- 2017-2019                  UGA Undergraduate Neuroscience Organization  
President (2018-2019) & Philanthropy Chair (2017-2018)

### **Journal Peer Review**

*Imaging Neuroscience*

*iScience*

## Professional Affiliations

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Organization for Human Brain Mapping  
Society for Neuroscience  
Network Science Society  
Psi Chi  
Phi Beta Kappa

## Publications

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- Cutts, S.A., Chumin, E.J., Betzel, R.F., Sporns, O. (2023). Temporal Variability of Brain-Behavior Relationships in Fine-Scale Dynamics of Edge Time Series. *bioRxiv*.
- Chumin, E.J., Cutts, S.A., Risacher, S.L., Apostolova, L.G., Farlow, M.R., McDonald, B.C., Wu, Y., Betzel, R.F., Saykin, A.J., Sporns, O. (2023) Edge Time Series Components of Functional Connectivity and Cognitive Function in Alzheimer's Disease. *Brain Imaging and Behavior (under review)*.
- Betzel, R.F., Cutts, S.A., Tanner, J., Greenwell, S., Varley, T., Faskowitz, J., Sporns, O. (2023) Hierarchical organization of spontaneous co-fluctuations in densely-sampled individuals using fMRI. *Network Neuroscience*, 1-38.
- Cutts, S.A., Faskowitz, J., Betzel, R.F., Sporns, O. (2022). Uncovering Variation of Individual Differences in Fine-Scale Dynamics of Functional Connectivity. *Cerebral Cortex*, 33 (5), 2375-2394.
- Betzel, R.F., Cutts, S.A., Greenwell, S., Sporns, O. (2022). Individualized event structure drives individual differences in whole-brain functional connectivity. *NeuroImage*, 252, 118993.
- Chumin, E.J., Faskowitz, J., Esfahlani, F.Z., Jo, Y., Merritt, H., Tanner, J., Cutts, S.A., Pope, M., Betzel, R.F., Sporns, O. (2022). Cortico-Subcortical Interactions in Overlapping Communities of Edge Functional Connectivity. *NeuroImage*, 250, 118971.
- Sporns, O., Faskowitz, J., Teixeira, A.S., Cutts, S.A., Betzel, R.F. (2021). Dynamic expression of brain functional systems disclosed by fine-scale analysis of edge time series. *Network Neuroscience* 5 (2), 405-433.
- Barany, D.A., Gómez-Granados, A., Schroyer, M., Cutts, S.A., & Singh, T. (2020). Perceptual decisions about object shape bias visuomotor coordination during rapid interception movements. *Journal of Neurophysiology* 123 (6), 2235-2248.
- Cutts, S.A., Frigaszy, D.M., & Mangalam, M. (2019). Consistent inter-individual differences in susceptibility to bodily illusions. *Consciousness and Cognition* 76:102826.
- Mangalam, M., Cutts, S.A., & Frigaszy, D.M. (2019). Sense of ownership and not the sense of agency is spatially bounded within the space reachable with the unaugmented hand. *Experimental Brain Research*, 237 (11), 2911–2914.

## **Conference Presentations**

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- Cutts, S.A., Chumin, E.J., Betzel, R.F., Sporns, O. (2023, July & September). *Temporal Variability of Brain-Behavior Relationships in Functional Connectivity*. Poster presented at the Organization for Human Brain Mapping and at the Greater Indiana Society for Neuroscience.
- Chumin, E.J., Cutts, S.A., Risacher, S.L., Apostolova, L.G., Farlow, M.R., McDonald, B.C., Wu, Y., Betzel, R.F., Saykin, A.J., Sporns, O. (2023, July). *Edge Time Series Components of Functional Connectivity and Cognitive Function in Alzheimer's Disease*. Poster presented at the Organization for Human Brain Mapping.
- Betzel, R.F., Cutts, S.A., Tanner, J., Greenwell, S., Faskowitz, J., Sporns, O. (2022, June). *Hierarchical Organization of Spontaneous Co-fluctuations in fMRI*. Poster presented at the Organization for Human Brain Mapping.
- Cutts, S.A., Faskowitz, J., Betzel, R.F., Sporns, O. (2021, July). *Uncovering Variation of Individual Differences in Fine-Scale Dynamics of Functional Connectivity*. Poster presented at the Organization for Human Brain Mapping and at Networks 2021, virtual.
- Betzel, R.F., Cutts, S.A., Greenwell, S., Sporns, O. (2021, July). *Personalized event structure drives whole-brain functional connectivity*. Poster presented at the Organization for Human Brain Mapping, virtual.
- Betzel, R.F., Faskowitz, J., Esfahlani, F.Z., Jo, Y., Merritt, H., Tanner, J., Cutts, S.A., Pope, M., Chumin, E.J., Sporns, O. (2021, July). *Task-induced reconfiguration of edge functional connectivity and communities*. Poster presented at the Organization for Human Brain Mapping, virtual.
- Chumin, E.J., Faskowitz, J., Esfahlani, F.Z., Jo, Y., Merritt, H., Tanner, J., Cutts, S.A., Pope, M., Betzel, R.F., Sporns, O. (2021, July). *Cortico-Subcortical Interactions in Overlapping Communities of Edge Functional Connectivity*. Poster presented at the Organization for Human Brain Mapping, virtual.
- Cutts, S.A., Mangalam, M., & Frigaszy, D.M. (2019, April). *Consistent Inter-Individual Differences in Susceptibility to Bodily Illusions*. Poster presented at the University of Georgia Center for Undergraduate Research 2019 Spring Symposium.
- Barton, S.A., Cutts, S.A., Garner, E., Presley, H.W., & Frigaszy, D.M. (2019, March). *Assessing Vigilance Behavior in Wild Bearded Capuchin Monkeys (*Sapajus libidinosus*)*. Poster presented at the South Eastern Evolution and Human Behavior Conference (SEEHB).
- Cutts, S.A., Hallowell, E.S., Oshri, A., & Sweet, L.H. (2018, April). *Neural Correlates of Early Life Stress and Depressive Symptoms*. Poster presented at the annual meeting of the Georgia Psychological Association.