

Joshua Faskowitz

Postdoctoral Fellow
Section on Functional Imaging Methods
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EDUCATION

- Ph.D. Neuroscience and Psychology, Indiana University, Bloomington, 2021
Advisor: Dr. Olaf Sporns
Committee: Dr. Olaf Sporns, Dr. Aina Puce, Dr. Amanda Mejia, Dr. Richard Betzel
- B.A. Neuroscience, Cognitive Science, University of Southern California, 2014

RESEARCH EXPERIENCE

- 2022– Postdoctoral Fellow
Section on Functional Imaging Methods
National Institute of Mental Health, Bethesda, MD
PI: Dr. Peter Bandettini
Analyzing fMRI data to better understand neural correlation patterns in space and time
- 2021–22 Postdoctoral Researcher
IU Department of Psychological and Brain Sciences, Bloomington, IN
PI: Dr. Olaf Sporns & Dr. Richard Betzel
- 2016–21 Graduate Student
IU Computational Cognitive Neuroscience Lab, Bloomington, IN
PI: Dr. Olaf Sporns
- 2014–16 Project Assistant
USC Imaging Genetics Center, Los Angeles, CA
PI: Dr. Paul Thompson; under supervision of Dr. Neda Jahanshad
Processed MRI into analysis-ready neuroimages by designing workflows
- 2012–14 Undergraduate Research Assistant
USC Emotion & Cognition Lab, Los Angeles, CA
PI: Dr. Mara Mather; under supervision of Dr. Allison Ponzio (graduate student)
Administered experiments; over 800 lab hours, 5 semesters, 1 summer

RESEARCH AREAS

• network neuroscience • network science algorithms and applications • community detection • edge-centric modeling • fMRI analysis and interpretation • time-varying connectivity

HONORS & AWARDS

- 2023 IU Department of Psychological and Brain Sciences Irving J. Saltzman Award (\$2,000)
Departmental outstanding recent PhD graduate

- 2021 IU Gill Center Linda and Jack Gill Graduate Student Award Honorable Mention
One of four awardees; selected from regional neuro. programs (IUB, IUPUI, Purdue, & Notre Dame)
- 2021 IU Department of Psychological and Brain Sciences J.R. Kantor Graduate Award (\$1,750)
Departmental outstanding advanced graduate student, shared with another student
- 2020-21 IU College of Arts and Sciences Dissertation Research Fellowship (\$20,000)
- 2016,19 ACNN Travel Award (~\$300)
Travel to Advanced Computational Neuroscience Network Workshop
- 2019 PNS Travel Award (\$800)
Travel to Network Neuroscience satellite, NetSci 2019
- 2016-21 NSF GRFP (\$34,000/yr, 3 years)
National Science Foundation Graduate Research Fellowship
- 2016 IU Department of Psychological and Brain Sciences Rebec Fellow (\$4000)
- 2010-14 USC Trustee Scholarship (\$43,000/yr, 4 years)
Full tuition; awarded for academics, leadership, and community service
- 2014 USC Order of Troy
For academic and leadership excellence; one of 112 undergraduate awardees
- 2014 Renaissance Scholar and Discovery Scholar
For excelling in two widely separated fields of study & for conducting scholarly research
One of 64 graduates with multiple scholar honors at graduation

ACADEMIC ACTIVITIES

For dates corresponding to academic activities: (Fa) Fall semester; (Sp) Spring semester; (Su) Summer.

Invited Talks

- 2022 Sp *Network Outcomes, Uses, and Null Models*
Practical App. of Netw. Neuro. Workshop, co-organized with Dr. Jenya Chumin
- 2022 Sp *Brain Networks: Close to the Edge*
Washington University in St. Louis “Neuroimaging in Health and Disease” Seminar Series
- 2022 Sp *Brain Networks: Close to the Edge*
Dr. Lucina Uddin Lab Meeting
- 2022 Su *fMRI Preprocessing Workshop*
Three day workshop (3hr/day) covering workflows for processing functional neuroimaging data on IU high performance computing resources
- 2020 Sp *Publicly Available Neuroimaging Databases*
CUNY2020, Workshop on Remote Data Collection

Teaching

- 23,24 Su *The Consciousness Network*
NIH summer journal club, co-organized with Dr. Sharif Kronemer
- 2019 Sp P303: Health Psychology
Teaching assistant

2018 Fa P211: Methods of Experimental Psychology
Instructor of record

Workshops/Hackathons Attended

‘24, ‘25 NIMH Grant Writing Workshop
Full day overview of grantmanship

2019 May Brainhack-Networks
Pre-NetSci 2019, University of Vermont

2018 Sp Brainhack Global at IU
Indiana University

2017 Fa 5th Indiana Neuroimaging Symposium and Hackathon
Purdue University

2017 Fa Neurohackweek
University of Washington eScience Institute

2016 Fa 4th Indiana Neuroimaging Symposium and Hackathon
Indiana University

2015 Jun. OHBM Hackathon
Pre-OHBM 2015, Honolulu, U.S.A

Code and Data Sharing

Example software development, please see github.com/faskowitz for more

- Multi Atlas Transfer Tools
Fit parcellations using FreeSurfer; run >19,000 times as app on Brainlife.io
- fMRI-2-Mat Tools
Strategically nuisance regress fMRI data

Example shared data, please see [figshare](https://figshare.com) for more

- Lifespan structural connectivity matrices from Faskowitz (2018) paper
- Brain-networks-across-the-web
Compilation of openly available brain networks

Research Skills

Coding/Scripting Languages

MATLAB (expert), scripting (bash, awk, grep, sed) (expert), Python (competent), R (competent), L^AT_EX(basic)

Computational Tools

GitHub, HPC environments, Docker/Singularity, Unix

Neuroimaging Packages

FSL, FreeSurfer, ANTs, Dipy, fMRIPrep, MRtrix, AFNI

Journal Peer Review

Please see Web of Science profile for more information

Aperture Neuro, Brain Imaging and Behavior, Brain Structure and Function, Biological Psychiatry, Cerebral Cortex, Communications Biology, Human Brain Mapping, Nature Communications, Network Science, Network Neuroscience, NeuroImage, Scientific Data, Scientific Reports, The Journal of Neuroscience, Trends in Cognitive Sciences

Professional Affiliations

• Network Science Society • Organization for Human Brain Mapping • Society for Neuroscience

PUBLICATIONS

Please see Google Scholar profile for citation metrics, entries marked with “*” indicate co-authorship

In Preparation

1. **Faskowitz, J**, Bandettini, P, Gonzalez-Castillo, J, Mapping high-amplitude edge time series events across space and time. 2025.

Pre-prints

1. Betzel, R, Puxeddu, MG, Seguin, C, Bazinet, V, Luppi, A, Podschun, A, Singleton, SP, **Faskowitz, J**, Parakkattu, V, Misic, B, Controlling the human connectome with spatially diffuse input signals. bioRxiv.
2. Seguin, C, Puxeddu, MG, **Faskowitz, J**, Betzel, RF, Sporns, O, Connectome architecture favours within-module diffusion and between-module routing. bioRxiv 2025:2025-2.
3. Jo, Y, Tanner, J, Seguin, C, **Faskowitz, J**, Betzel, R, Variation in high-amplitude events across the human lifespan. bioRxiv 2024:2024-5.
4. Puxeddu, MG, Pope, M, Varley, TF, **Faskowitz, J**, Sporns, O, Leveraging multivariate information for community detection in functional brain networks. bioRxiv 2024:2024-7.
5. Tanner, J, **Faskowitz, J**, Kennedy, DP, Betzel, RF, Dynamic adaptation to novelty in the brain is related to arousal and intelligence. bioRxiv 2024.
6. **Faskowitz, J**, Moyer, D, Handwerker, D, Gonzalez-Castillo, J, Bandettini, P, Jbabdi, S, Betzel, R, Commentary on Pang et al.(2023) nature. bioRxiv 2023:2023-7.
7. Betzel, R, Chumin, EJ, Zamani Esfahlani, F, Tanner, J, **Faskowitz, J**, System-level high-amplitude co-fluctuations. bioRxiv 2022:2022-7.
8. Betzel, R, **Faskowitz, J**, Misic, B, Sporns, O, Seguin, C, Multi-policy models of interregional communication in the human connectome. bioRxiv 2022.
9. **Faskowitz, ***, Tanner, *, Misic, B, Betzel, R, An edge-centric model for harmonizing multi-relational network datasets. bioRxiv 2021.
10. Jahanshad, N, Ganjgahi, H, Bralten, J, Den Braber, A, **Faskowitz, J**, Knodt, A, Lemaitre, H, Nir, T, Patel, B, Richie, S, Do Candidate Genes Affect the Brain’s White Matter Microstructure? Large-Scale Evaluation of 6,165 Diffusion MRI Scans. BioRxiv 2017.
11. Moyer, D, Gutman, BA, **Faskowitz, J**, Jahanshad, N, Thompson, PM, An Empirical Study of Continuous Connectivity Degree Sequence Equivalents. arXiv 2016.

Journal Articles

1. Pope, M, Varley, TF, Puxeddu, MG, **Faskowitz, J**, Sporns, O, Time-varying synergy/redundancy dominance in the human cerebral cortex. *Journal of Physics: Complexity*.
2. Hayashi, S, Caron, BA, Heinsfeld, AS, Vinci-Booher, S, McPherson, B, Bullock, DN, Bertò, G, Niso, G, Hanekamp, S, ... **Faskowitz, J**, ... Pestilli, F, brainlife. io: a decentralized and open-source cloud platform to support neuroscience research. *Nature methods* 2024;11–5.
3. Idesis, S, Geli, S, **Faskowitz, J**, Vohryzek, J, Sanz Perl, Y, Pieper, F, Galindo-Leon, E, Engel, AK, Deco, G, Functional hierarchies in brain dynamics characterized by signal reversibility in ferret cortex. *PLOS Computational Biology* 2024;20:e1011818.
4. Merritt, H, **Faskowitz, J**, Gonzalez, MZ, Betzel, RF, Stability and variation of brain-behavior correlation patterns across measures of social support. *Imaging Neuroscience* 2024;2:1–18.
5. Popp, JL, Thiele, JA, **Faskowitz, J**, Seguin, C, Sporns, O, Hilger, K, Structural-functional brain network coupling predicts human cognitive ability. *NeuroImage* 2024;290:120563.
6. Pritschet, L, Taylor, CM, Cossio, D, **Faskowitz, J**, Santander, T, Handwerker, DA, Grotzinger, H, Layher, E, Chrastil, ER, Jacobs, EG, Neuroanatomical changes observed over the course of a human pregnancy. *Nature Neuroscience* 2024;27:2253–60.
7. Puxeddu, MG, **Faskowitz, J**, Seguin, C, Yovel, Y, Assaf, Y, Betzel, R, Sporns, O, Relation of connectome topology to brain volume across 103 mammalian species. *Plos Biology* 2024;22:e3002489.
8. Ragone, E, Tanner, J, Jo, Y, Zamani Esfahlani, F, **Faskowitz, J**, Pope, M, Coletta, L, Gozzi, A, Betzel, R, Modular subgraphs in large-scale connectomes underpin spontaneous co-fluctuation events in mouse and human brains. *Communications Biology* 2024;7:126.
9. Tanner, J, **Faskowitz, J**, Teixeira, AS, Seguin, C, Coletta, L, Gozzi, A, Mišić, B, Betzel, RF, A multi-modal, asymmetric, weighted, and signed description of anatomical connectivity. *Nature communications* 2024;15:5865.
10. Thiele, JA, **Faskowitz, J**, Sporns, O, Hilger, K, Choosing explanation over performance: Insights from machine learning-based prediction of human intelligence from brain connectivity. *PNAS nexus* 2024;3:pga519.
11. Betzel, RF, Cutts, SA, Tanner, J, Greenwell, SA, Varley, T, **Faskowitz, J**, Sporns, O, Hierarchical organization of spontaneous co-fluctuations in densely sampled individuals using fMRI. *Network Neuroscience* 2023;7:926–49.
12. Betzel, RF, **Faskowitz, J**, Sporns, O, Living on the edge: network neuroscience beyond nodes. *Trends in cognitive sciences* 2023;27:1068.
13. Greenwell, S, **Faskowitz, J**, Pritschet, L, Santander, T, Jacobs, EG, Betzel, RF, High-amplitude network co-fluctuations linked to variation in hormone concentrations over the menstrual cycle. *Network Neuroscience* 2023;7:1181–205.
14. Idesis, S, Allegra, M, Vohryzek, J, Sanz Perl, Y, **Faskowitz, J**, Sporns, O, Corbetta, M, Deco, G, A low dimensional embedding of brain dynamics enhances diagnostic accuracy and behavioral prediction in stroke. *Scientific Reports* 2023;13:15698.
15. Merritt, H, **Faskowitz, J**, Gonzalez, MZ, Betzel, RF, Stability of brain-behavior correlation patterns across measures of social support. *bioRxiv* 2023:2023–3.
16. Pope, M, Seguin, C, Varley, TF, **Faskowitz, J**, Sporns, O, Co-evolving dynamics and topology in a coupled oscillator model of resting brain function. *NeuroImage* 2023;277:120266.

17. Tanner, JC, **Faskowitz, J**, Byrge, L, Kennedy, DP, Sporns, O, Betzel, RF, Synchronous high-amplitude co-fluctuations of functional brain networks during movie-watching. *Imaging Neuroscience* 2023;1:1–21.
18. Varley, TF, Pope, M, **Faskowitz, J**, Sporns, O, Multivariate information theory uncovers synergistic subsystems of the human cerebral cortex. *Communications biology* 2023;6:451.
19. Varley, TF, Pope, M, Maria Grazia, P, **Faskowitz, J**, Sporns, O, Partial entropy decomposition reveals higher-order information structures in human brain activity. *Proceedings of the National Academy of Sciences* 2023;120:e2300888120.
20. Wehrheim, MH, **Faskowitz, J**, Sporns, O, Fiebach, CJ, Kaschube, M, Hilger, K, Few temporally distributed brain connectivity states predict human cognitive abilities. *NeuroImage* 2023;277:120246.
21. Betzel, RF, Cutts, SA, Greenwell, S, **Faskowitz, J**, Sporns, O, Individualized event structure drives individual differences in whole-brain functional connectivity. *NeuroImage* 2022;252:118993.
22. Chumin, EJ, **Faskowitz, J**, Esfahlani, FZ, Jo, Y, Merritt, H, Tanner, J, Cutts, SA, Pope, M, Betzel, R, Sporns, O, Cortico-subcortical interactions in overlapping communities of edge functional connectivity. *NeuroImage* 2022;250:118971.
23. Cutts, SA, **Faskowitz, J**, Betzel, RF, Sporns, O, Uncovering individual differences in fine-scale dynamics of functional connectivity. *Cerebral Cortex (New York, NY: 1991)* 2022.
24. **Faskowitz, J**, Puxeddu, MG, Heuvel, MP, Mišić, B, Yovel, Y, Assaf, Y, Betzel, RF, Sporns, O, Connectome topology of mammalian brains and its relationship to taxonomy and phylogeny. *Frontiers in neuroscience* 2022;16.
25. Idesis, S, **Faskowitz, J**, Betzel, RF, Corbetta, M, Sporns, O, Deco, G, Edge-centric analysis of stroke patients: An alternative approach for biomarkers of lesion recovery. *NeuroImage: Clinical* 2022;103055.
26. Milardi, D, Basile, GA, **Faskowitz, J**, Bertino, S, Quartarone, A, Anastasi, GP, Bramanti, A, Ciurleo, R, Cacciola, A, Effects of diffusion signal modeling and segmentation approaches on subthalamic nucleus parcellation. *NeuroImage* 2022;250:118959.
27. Puxeddu, MG, **Faskowitz, J**, Sporns, O, Astolfi, L, Betzel, RF, Multi-modal and multi-subject modular organization of human brain networks. *NeuroImage* 2022;264:119673.
28. Thiele, J, **Faskowitz, J**, Sporns, O, Hilger, K, Multitask Brain Network Reconfiguration Is Inversely Associated with Human Intelligence. *Cerebral Cortex (New York, NY: 1991)* 2022.
29. Zamani Esfahlani, F, **Faskowitz, J**, Slack, J, Mišić, B, Betzel, RF, Local structure-function relationships in human brain networks across the lifespan. *Nature communications* 2022;13:1–16.
30. Caron, B, Stuck, R, McPherson, B, Bullock, D, Kitchell, L, **Faskowitz, J**, Kellar, D, Cheng, H, Newman, S, Port, N, Collegiate athlete brain data for white matter mapping and network neuroscience. *Scientific Data* 2021;8:1–17.
31. Esfahlani, FZ, Jo, Y, Puxeddu, MG, Merritt, H, Tanner, JC, Greenwell, S, Patel, R, **Faskowitz, J**, Betzel, RF, Modularity maximization as a flexible and generic framework for brain network exploratory analysis. *NeuroImage* 2021;244:118607.
32. **Faskowitz, J**, Betzel, RF, Sporns, O, Edges in brain networks: contributions to models of structure and function. *Network Neuroscience* 2021:1–63.
33. Jo, Y, Esfahlani, FZ, **Faskowitz, J**, Chumin, EJ, Sporns, O, Betzel, RF, The diversity and multiplexity of edge communities within and between brain systems. *Cell reports* 2021;37:110032.

34. Jo, Y, **Faskowitz, J**, Esfahlani, FZ, Sporns, O, Betzel, RF, Subject identification using edge-centric functional connectivity. *NeuroImage* 2021;118:204.
35. Levakov, G, **Faskowitz, J**, Avidan, G, Sporns, O, Mapping individual differences across brain network structure to function and behavior with connectome embedding. *NeuroImage* 2021;118:469.
36. Nir, TM, Fouche, JP, Ananworanich, J, Ances, BM, Boban, J, Brew, BJ, Chang, L, Chaganti, JR, Ching, CR, ... **Faskowitz, J**, ... Jahanshad, N, Association of immunosuppression and viral load with subcortical brain volume in an international sample of people living with HIV. *JAMA network open* 2021;4:e2031190–e2031190.
37. Sporns, O, **Faskowitz, J**, Teixeira, AS, Cutts, SA, Betzel, RF, Dynamic expression of brain functional systems disclosed by fine-scale analysis of edge time series. *Network Neuroscience* 2021;5:405–33.
38. Esfahlani, FZ, Jo, Y, **Faskowitz, J**, Byrge, L, Kennedy, DP, Sporns, O, Betzel, RF, High-amplitude cofluctuations in cortical activity drive functional connectivity. *Proceedings of the National Academy of Sciences* 2020;117:28393–401.
39. **Faskowitz, J**, Esfahlani, FZ, Jo, Y, Sporns, O, Betzel, RF, Edge-centric functional network representations of human cerebral cortex reveal overlapping system-level architecture. *Nature Neuroscience* 2020.
40. **Faskowitz, J**, Sporns, O, Mapping the community structure of the rat cerebral cortex with weighted stochastic block modeling. *Brain Structure and Function* 2020;225:71–84.
41. Hughes, C, **Faskowitz, J**, Cassidy, BS, Sporns, O, Krendl, AC, Aging relates to a disproportionately weaker functional architecture of brain networks during rest and task states. *NeuroImage* 2020;116:521.
42. Pizzagalli, F, Auzias, G, Yang, Q, Mathias, SR, **Faskowitz, J**, Boyd, JD, Amini, A, Rivière, D, McMahan, KL, Zubicaray, GI, The reliability and heritability of cortical folds and their genetic correlations across hemispheres. *Communications Biology* 2020;3:1–12.
43. Puxeddu, MG, **Faskowitz, J**, Betzel, RF, Petti, M, Astolfi, L, Sporns, O, The modular organization of brain cortical connectivity across the human lifespan. *NeuroImage* 2020;116:974.
44. Hughes, C, Cassidy, BS, **Faskowitz, J**, Avena-Koenigsberger, A, Sporns, O, Krendl, AC, Age differences in specific neural connections within the Default Mode Network underlie theory of mind. *NeuroImage* 2019;191:269–77.
45. Jahanshad, N, **Faskowitz, JI**, Roshchupkin, G, Hibar, D, Gutman, BA, Tustison, NJ, Adams, HH, Niessen, W, Vernooij, MW, Ikram, MA, MULTI-SITE META-ANALYSIS OF MORPHOMETRY. *IEEE/ACM transactions on computational biology and bioinformatics* 2019.
46. Corlier, F, Hafzalla, G, **Faskowitz, J**, Kuller, LH, Becker, JT, Lopez, OL, Thompson, PM, Braskie, MN, Systemic inflammation as a predictor of brain aging: contributions of physical activity, metabolic risk, and genetic risk. *Neuroimage* 2018;172:118–29.
47. **Faskowitz, J**, Yan, X, Zuo, XN, Sporns, O, Weighted Stochastic Block Models of the Human Connectome across the Life Span. *Scientific reports* 2018;8:12997.
48. Kelly, S, Jahanshad, N, Zalesky, A, Kochunov, P, Agartz, I, Alloza, C, Andreassen, O, Arango, C, Banaj, N, ... **Faskowitz, J**, ... Donohoe, G, Widespread white matter microstructural differences in schizophrenia across 4322 individuals: results from the ENIGMA Schizophrenia DTI Working Group. *Molecular psychiatry* 2018;23:1261.

49. Van Erp, TG, Walton, E, Hibar, DP, Schmaal, L, Jiang, W, Glahn, DC, Pearlson, GD, Yao, N, ... **Faskowitz, J**, ... Turner, JA, Cortical brain abnormalities in 4474 individuals with schizophrenia and 5098 control subjects via the Enhancing Neuro Imaging Genetics Through Meta Analysis (ENIGMA) Consortium. *Biological psychiatry* 2018;84:644–54.
50. Dennis, EL, **Faskowitz, J**, Rashid, F, Babikian, T, Mink, R, Babbitt, C, Johnson, J, Giza, CC, Jahanshad, N, Thompson, PM, Diverging volumetric trajectories following pediatric traumatic brain injury. *Neuroimage: clinical* 2017;15:125–35.
51. Moyer, D, Gutman, BA, **Faskowitz, J**, Jahanshad, N, Thompson, PM, Continuous representations of brain connectivity using spatial point processes. *Medical image analysis* 2017;41:32–9.
52. Wang, J, Braskie, MN, Hafzalla, GW, **Faskowitz, J**, McMahon, KL, Zubicaray, GI, Wright, MJ, Yu, C, Thompson, PM, Relationship of a common OXTR gene variant to brain structure and default mode network function in healthy humans. *Neuroimage* 2017;147:500–6.
53. Hibar, D, Westlye, LT, Erp, TG, Rasmussen, J, Leonardo, CD, **Faskowitz, J**, Haukvik, UK, Hartberg, CB, Doan, NT, Agartz, I, Subcortical volumetric abnormalities in bipolar disorder. *Molecular psychiatry* 2016;21:1710.
54. Lee, PH, Baker, JT, Holmes, AJ, Jahanshad, N, Ge, T, Jung, JY, Cruz, Y, Manoach, DS, Hibar, DP, **Faskowitz, J**, Partitioning heritability analysis reveals a shared genetic basis of brain anatomy and schizophrenia. *Molecular psychiatry* 2016;21:1680.
55. Whelan, CD, Hibar, DP, Velzen, LS, Zannas, AS, Carrillo-Roa, T, McMahon, K, Prasad, G, Kelly, S, **Faskowitz, J**, deZubicaray, G, Heritability and reliability of automatically segmented human hippocampal formation subregions. *Neuroimage* 2016;128:125–37.

Peer-Reviewed Conference Proceedings

1. Ding, L, Zhu, AH, Saremi, A, **Faskowitz, JI**, Håberg, A, Thompson, PM, Jahanshad, N, Voxelwise meta-analysis of brain structural associations with genome-wide polygenic risk for Alzheimer’s disease. In: *14th International Symposium on Medical Information Processing and Analysis*. Vol. 10975. International Society for Optics and Photonics. 2018:109750L.
2. Jahanshad, N, Roshchupkin, G, **Faskowitz, J**, Hibar, DP, Gutman, BA, Adams, HH, Niessen, WJ, Vernooij, MW, Ikram, MA, Zwiers, MP, Multisite metaanalysis of image-wide genome-wide associations with morphometry. In: *Imaging Genetics*. Academic Press, 2018:1–23.
3. Pizzagalli, F, Auzias, G, Amini, A, **Faskowitz, J**, Rashid, F, Moyer, D, Kochunov, P, Rivière, D, Mangin, JF, Thompson, PM, Sulcal-based morphometry in Parkinson’s disease: a study of reliability and disease effects. In: *14th International Symposium on Medical Information Processing and Analysis*. Vol. 10975. International Society for Optics and Photonics. 2018:109750T.
4. Rinker, DA, Jahanshad, N, Hibar, DP, **Faskowitz, J**, McMahon, KL, Zubicaray, GI, Wright, MJ, Thompson, PM, Genetic Connectivity–Correlated Genetic Control of Cortical Thickness, Brain Volume, and White Matter. In: *Imaging Genetics*. Academic Press, 2018:25–43.
5. Dennis, EL, Rashid, F, **Faskowitz, J**, Jin, Y, McMahon, KL, De Zubicaray, GI, Martin, NG, Hickie, IB, Wright, MJ, Jahanshad, N, Mapping age effects along fiber tracts in young adults. In: *2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI 2017)*. IEEE. 2017:101–4.
6. Hafzalla, GW, Ragothaman, A, **Faskowitz, J**, Jahanshad, N, McMahon, KL, De Zubicaray, GI, Wright, MJ, Braskie, MN, Prasad, G, Thompson, PM, A comparison of network definitions for detecting sex differences in brain connectivity using Support Vector Machines. In: *2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI 2017)*. IEEE. 2017:961–5.

7. Harrison, MB, Riedel, BC, Prasad, G, Jahanshad, N, **Faskowitz, J**, Thompson, PM, Utilizing brain measures for large-scale classification of autism applying EPIC. In: *12th International Symposium on Medical Information Processing and Analysis*. Vol. 10160. International Society for Optics and Photonics. 2017:101600W.
8. Isaev, D, Gutman, BA, Moyer, D, **Faskowitz, J**, Thompson, PM, Cortical connectome registration using spherical demons. In: *12th International Symposium on Medical Information Processing and Analysis*. Vol. 10160. International Society for Optics and Photonics. 2017:101600M.
9. Kurmukov, A, Ananyeva, M, Dodonova, Y, Gutman, B, **Faskowitz, J**, Jahanshad, N, Thompson, P, Zhukov, L, Classifying phenotypes based on the community structure of human brain networks. In: *Graphs in Biomedical Image Analysis, Computational Anatomy and Imaging Genetics*. Springer, Cham, 2017:3–11.
10. Mokrov, N, Panov, M, Gutman, BA, **Faskowitz, JI**, Jahanshad, N, Thompson, PM, Simultaneous Matrix Diagonalization for Structural Brain Networks Classification. In: *International Conference on Complex Networks and their Applications*. Springer, Cham. 2017:1261–70.
11. Petrov, D, Gutman, B, Ivanov, A, **Faskowitz, J**, Jahanshad, N, Belyaev, M, Thompson, P, Structural connectome validation using pairwise classification. In: *2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI 2017)*. IEEE. 2017:451–5.
12. Petrov, D, Ivanov, A, **Faskowitz, J**, Gutman, B, Moyer, D, Villalon, J, Jahanshad, N, Thompson, P, Evaluating 35 methods to generate structural connectomes using pairwise classification. In: *International Conference on medical Image Computing and Computer-Assisted Intervention*. Springer, Cham. 2017:515–22.
13. Pizzagalli, F, Auzias, G, Kochunov, P, **Faskowitz, JI**, Thompson, PM, Jahanshad, N, The core genetic network underlying sulcal morphometry. In: *12th International Symposium on Medical Information Processing and Analysis*. Vol. 10160. International Society for Optics and Photonics. 2017:101600C.
14. Belyaev, M, Dodonova, Y, Belyaeva, D, Krivov, E, Gutman, B, **Faskowitz, J**, Jahanshad, N, Thompson, P, Using Geometry of the Set of Symmetric Positive Semidefinite Matrices to Classify Structural Brain Networks. In: *International Conference on Network Analysis*. Springer, Cham. 2016:257–67.
15. Dennis, EL, Rashid, F, Villalon-Reina, J, Prasad, G, **Faskowitz, J**, Babikian, T, Mink, R, Babbitt, C, Johnson, J, Giza, CC, Multi-modal registration improves group discrimination in pediatric traumatic brain injury. In: *International Workshop on Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries*. Springer, Cham. 2016:32–42.
16. **Faskowitz, J**, Zubicaray, GI, McMahon, KL, Wright, MJ, Thompson, PM, Jahanshad, N, Comparison of template registration methods for multi-site meta-analysis of brain morphometry. In: *Medical Imaging 2016: Biomedical Applications in Molecular, Structural, and Functional Imaging*. Vol. 9788. International Society for Optics and Photonics. 2016:978822.
17. Hafzalla, GW, Prasad, G, Baboyan, VG, **Faskowitz, J**, Jahanshad, N, McMahon, KL, Zubicaray, GI, Wright, MJ, Braskie, MN, Thompson, PM, The heritability of the functional connectome is robust to common nonlinear registration methods. In: *Medical Imaging 2016: Image Processing*. Vol. 9784. International Society for Optics and Photonics. 2016:97841R.
18. Kurmukov, A, Dodonova, Y, Burova, M, Mussabayeva, A, Petrov, D, **Faskowitz, J**, Zhukov, LE, Topological Modules of Human Brain Networks Are Anatomically Embedded: Evidence from Modularity Analysis at Multiple Scales. In: *International Conference on Network Analysis*. Springer, Cham. 2016:299–308.

19. Moyer, D, Gutman, BA, **Faskowitz, J**, Jahanshad, N, Thompson, PM, A continuous model of cortical connectivity. In: *International Conference on Medical Image Computing and Computer-Assisted Intervention*. Springer. 2016:157–65.
20. Pizzagalli, F, Auzias, G, Kochunov, P, **Faskowitz, JI**, McMahon, KL, De Zubicaray, GI, Martin, NG, Wright, MJ, Jahanshad, N, Thompson, PM, Genetic analysis of cortical sulci in 1,009 adults. In: *2016 IEEE 13th International Symposium on Biomedical Imaging (ISBI)*. IEEE. 2016:833–7.
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Conference Posters (first-author only)

1. **Faskowitz, J**, Gonzalez-Castillo, J, Bandettini, PA, Edge event organization across temporal categories. Poster accepted for OHBM, Brisbane, AUS. 2025.
2. **Faskowitz, J**, Gonzalez-Castillo, J, Handwerker, DA, Bandettini, PA, On the features of spiking connectivity. Poster presented at OHBM, Seoul, KOR. 2024.
3. **Faskowitz, J**, Morgan, T, Handwerker, DA, Gonzalez-Castillo, J, Bandettini, PA, On the static and dynamic features of edge time series. Poster presented at OHBM, Montreal, CA. 2023.
4. **Faskowitz, J**, Puxeddu, MG, Heuvel, M, Misic, B, Yovel, Y, Assaf, Y, Betzel, R, Sporns, O, Mammalian brain network distances and their relationship to taxonomy and phylogeny. Poster presented at SfN, San Diego, U.S.A. 2022.
5. **Faskowitz, J**, Tanner, J, Misic, B, Betzel, R, An edge-centric model for harmonizing multi-relational network datasets. Poster presented virtually at OHBM. 2021.
6. **Faskowitz, J**, Varley, T, Betzel, R, Sporns, O, Edge community structure of functional MRI and meta-analytic activation. Poster presented virtually at OHBM. 2021.
7. **Faskowitz, J**, Esfahlani, FZ, Jo, Y, Sporns, O, Betzel, RF, Edge functional connectivity reveals overlapping community structure. Poster presented virtually at OHBM, Montreal, CA. 2020.
8. **Faskowitz, J**, Jo, Y, Esfahlani, FZ, Sporns, O, Betzel, RF, The edge-centric representation of functional brain networks. Poster presented virtually at OHBM, Montreal, CA. 2020.
9. **Faskowitz, J**, Victroy, C, Hunt, D, Delogu, F, Hayashi, S, Betzel, R, Pestilli, F, The brainlife.io cloud-services for functional network neuroscience. Poster presented virtually at OHBM, Montreal, CA. 2020.

10. **Faskowitz, J**, Sporns, O, Analyzing the Structure of Brain Networks using Stochastic Block Models. Poster presented at NetSci and Network Neuroscience satellite, Burlington, U.S.A. 2019.
11. **Faskowitz, J**, Sporns, O, Mapping the Community Structure of the Connectome with Weighted Stochastic Block Modeling. Poster presented at OHBM, Rome, IT. 2019.
12. **Faskowitz, J**, Yan, X, Zuo, XN, Sporns, O, Weighted stochastic blockmodels of the human connectome across the life span. Poster presented at SfN, San Diego, U.S.A. 2018.
13. **Faskowitz, J**, Yan, X, Zuo, XN, Sporns, O, Development of Community Structure in the Human Connectome across the Life Span: An Application of Weighted Stochastic Blockmodels. Poster presented at NetSci and Network Neuroscience satellite, Indianapolis, U.S.A. 2017.
14. **Faskowitz, J**, Pizzagalli, F, Jahanshad, N, Ching, C, Mwangi, B, Soares, JC, Thompson, PM, Cortical investigation of bipolar disorder reveals inferior frontal gyral and sulcal abnormalities. Poster presented at OHBM, Geneva, CH. 2016.
15. **Faskowitz, J**, Pizzagalli, F, Mwangi, B, Kochunov, P, Thompson, PM, Soares, JC, N. J, Cortical abnormalities in patients with bipolar disorder more localized than in those with schizophrenia. Poster presented at SfN, San Diego, U.S.A. 2016.
16. **Faskowitz, J**, McMahon, K, Zubicaray, G, Thompson, PM, Wright, M, Jahanshad, N, Cortical investigation of bipolar disorder reveals inferior frontal gyral and sulcal abnormalities. Poster presented at OHBM, Geneva, CH. 2016.
17. **Faskowitz, J**, Hibar, H, Thompson, PM, Jahanshad, N, Test-retest reliability of cortical parcellations in 165 healthy adults for multi-site analyses in the ENIGMA consortium. Poster presented at SfN, Chicago, U.S.A. 2015.
18. **Faskowitz, J**, Ching, C, Soares, JC, Thompson, PM, Jahanshad, N, Brain white matter integrity in bipolar disorder subtypes assessed with diffusion tensor imaging. Poster presented at Cognitive Neuroscience Society, San Francisco, U.S.A. 2015.
19. **Faskowitz, J**, Jahanshad, N, Hansell, N, Zubicaray, G, McMahon, K, Martin, N, Wright, M, Thompson, PM, CD56+ Natural Killer cell counts associate with reductions in white matter fractional anisotropy. Poster presented at OHBM, Honolulu, U.S.A. 2015.
20. **Faskowitz, J**, Ponzio, A, Castrellon, JJ, Mather, M, The influence of emotion on the recognition of change. Poster presented at Western Psychological Association, Portland, U.S.A. 2014.

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