

Stanford



Adam Pines

Postdoctoral Scholar, Psychiatry

Bio

BIO

Adam Pines, Ph.D., is a postdoctoral fellow with Drs. Anish Mitra and Nolan Williams, PhD. Adam completed his Ph.D. in Neuroscience at the University of Pennsylvania in Philadelphia. Adam's work centers on neurodevelopment and the role of hierarchical brain function in mood disorder emergence and remission.

HONORS AND AWARDS

- Walter and Idun Berry Postdoctoral Fellowship, School of Medicine (2025-)
- Merit Award, The Organization for Human Brain Mapping (2025)
- Travel Award, Society of Biological Psychiatry (2025)
- Trailblazing Trainee Award, Stanford Psychiatry and Behavioral Sciences (2024-2025)
- Dean's Fellowship, School of Medicine (2023-2024)
- NRSA F31: Personalized Mapping of Affective Liability, NIMH (2021-2022)
- Jameson-Hurvich Award in Behavioral Neuroscience, University of Pennsylvania (2021)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Pennsylvania (2022)
- PhD, University of Pennsylvania , Neuroscience (2022)
- BA, Loyola Marymount University , Psychology (2015)

STANFORD ADVISORS

- Anish Mitra, Postdoctoral Research Mentor
- Nolan Williams, Postdoctoral Faculty Sponsor

LINKS

- My personal website: <https://adpines.github.io/site/>

Publications

PUBLICATIONS

- **Psychiatric Symptoms, Cognition, and Symptom Severity in Children.** *JAMA psychiatry*
Pines, A., Tozzi, L., Bertrand, C., Keller, A. S., Zhang, X., Whitfield-Gabrieli, S., Hastie, T., Larsen, B., Leikauf, J., Williams, L. M.
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- **Development of top-down cortical propagations in youth.** *Neuron*
Pines, A., Keller, A. S., Larsen, B., Bertolero, M., Ashourvan, A., Bassett, D. S., Cieslak, M., Covitz, S., Fan, Y., Feczko, E., Houghton, A., Rueter, A. R., Saggat, et al
2023
- **Dissociable multi-scale patterns of development in personalized brain networks** *NATURE COMMUNICATIONS*
Pines, A. R., Larsen, B., Cui, Z., Sydnor, V. J., Bertolero, M. A., Adebimpe, A., Alexander-Bloch, A. F., Davatzikos, C., Fair, D. A., Gur, R. C., Gur, R. E., Li, H., Milham, et al
2022; 13 (1): 2647
- **Highly replicable multisite patterns of adolescent white matter maturation.** *bioRxiv : the preprint server for biology*
Meisler, S. L., Cieslak, M., Bagautdinova, J., Hendrickson, T. J., Pandhi, T., Chen, A. A., Hillman, N., Radhakrishnan, H., Salo, T., Feczko, E., Weldon, K. B., McCollum, R., Fayzullobekova, et al
2026
- **Sex differences in response to violence: role of salience network expansion and connectivity on depression.** *Translational psychiatry*
Butler, E. R., Samia, N. I., Mejia, A. F., Pham, D. D., Pines, A., Nusslock, R.
2025; 15 (1): 427
- **Reproducible sex differences in personalised functional network topography in youth.** *The British journal of psychiatry : the journal of mental science*
Keller, A. S., Sun, K. Y., Francisco, A., Robinson, H., Beydler, E., Bassett, D. S., Cieslak, M., Cui, Z., Davatzikos, C., Fan, Y., Gardner, M., Kishton, R., Kornfield, et al
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- **Reproducible Sex Differences in Personalized Functional Network Topography in Youth**
Keller, A., Sun, K., Francisco, A., Robinson, H., Beydler, E., Cieslak, M., Cui, Z., Davatzikos, C., Fan, Y., Gardner, M., Kishton, R., Kornfield, S., Larsen, et al
ELSEVIER SCIENCE INC.2025
- **Exploring the effects of cognitive behavioral therapy on cognitive control circuit and behavioral task performance in hoarding disorder.** *Journal of psychiatric research*
Muñoz Rodríguez, P. A., Pines, A., Zhang, X., van Roessel, P. J., Mukunda, P., McCarthy, E., Williams, L. M., Rodríguez, C. I.
2025; 186: 423-433
- **Connectional axis of individual functional variability: Patterns, structural correlates, and relevance for development and cognition.** *Proceedings of the National Academy of Sciences of the United States of America*
Yang, H., Wu, G., Li, Y., Xu, X., Cong, J., Xu, H., Ma, Y., Li, Y., Chen, R., Pines, A., Xu, T., Sydnor, V. J., Satterthwaite, et al
2025; 122 (12): e2420228122
- **Sex differences in response to violence: Role of salience network expansion and connectivity on depression.** *Research square*
Butler, E. R., Samia, N., Mejia, M., Pham, D., Pines, A., Nusslock, R.
2025
- **Hierarchical individual variation and socioeconomic impact on personalized functional network topography in children.** *BMC medicine*
Zhao, S., Su, H., Cong, J., Wen, X., Yang, H., Chen, P., Wu, G., Fan, Q., Ma, Y., Xu, X., Hu, C., Li, H., Keller, et al
2024; 22 (1): 556
- **Reproducible Sex Differences in Personalized Functional Network Topography in Youth.** *bioRxiv : the preprint server for biology*
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- **Adaptive cognitive control circuit changes associated with problem-solving ability and depression symptom outcomes over 24 months.** *Science translational medicine*
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2024; 16 (763): eadh3172
- **Mapping the neurodevelopmental predictors of psychopathology** *MOLECULAR PSYCHIATRY*
Jirsaraie, R. J., Gatavins, M. M., Pines, A. R., Kandala, S., Bijsterbosch, J. D., Marek, S., Bogdan, R., Barch, D. M., Sotiras, A.

2025; 30 (2): 478-488

- **Personalized brain circuit scores identify clinically distinct biotypes in depression and anxiety.** *Nature medicine*
Tozzi, L., Zhang, X., Pines, A., Olmsted, A. M., Zhai, E. S., Anene, E. T., Chesnut, M., Holt-Gosselin, B., Chang, S., Stetz, P. C., Ramirez, C. A., Hack, L. M., Korgaonkar, et al
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- **Mapping the Neurobiological Markers of Psychopathology**
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- **Understanding Cognitive Development by Capturing Complex, Multidimensional, Childhood Environments and Individual-Specific Patterns of Functional Brain Network Organization**
Keller, A., Moore, T. M., Luo, A., Visoki, E., Gatavins, M., Shetty, A., Cui, Z., Fan, Y., Feczko, E., Houghton, A., Li, H., Mackey, A. P., Miranda-Dominguez, et al
ELSEVIER SCIENCE INC.2024: S85
- **Functional connectivity development along the sensorimotor-association axis enhances the cortical hierarchy.** *Nature communications*
Luo, A. C., Sydnor, V. J., Pines, A., Larsen, B., Alexander-Bloch, A. F., Cieslak, M., Covitz, S., Chen, A. A., Esper, N. B., Feczko, E., Franco, A. R., Gur, R. E., Gur, et al
2024; 15 (1): 3511
- **A general exposome factor explains individual differences in functional brain network topography and cognition in youth.** *Developmental cognitive neuroscience*
Keller, A. S., Moore, T. M., Luo, A., Visoki, E., Gataviš, M. M., Shetty, A., Cui, Z., Fan, Y., Feczko, E., Houghton, A., Li, H., Mackey, A. P., Miranda-Dominguez, et al
2024; 66: 101370
- **Personalized functional brain network topography is associated with individual differences in youth cognition.** *Nature communications*
Keller, A. S., Pines, A. R., Shanmugan, S., Sydnor, V. J., Cui, Z., Bertolero, M. A., Barzilay, R., Alexander-Bloch, A. F., Byington, N., Chen, A., Conan, G. M., Davatzikos, C., Feczko, et al
2023; 14 (1): 8411
- **Functional imaging studies of acute administration of classic psychedelics, ketamine, and MDMA: Methodological limitations and convergent results.** *Neuroscience and biobehavioral reviews*
Linguiti, S., Vogel, J. W., Sydnor, V. J., Pines, A., Wellman, N., Basbaum, A., Eickhoff, C. R., Eickhoff, S. B., Edwards, R. R., Larsen, B., McKinstry-Wu, A., Scott, J. C., Roalf, et al
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- **Individual differences in delay discounting are associated with dorsal prefrontal cortex connectivity in children, adolescents, and adults.** *Developmental cognitive neuroscience*
Mehta, K., Pines, A., Adebimpe, A., Larsen, B., Bassett, D. S., Calkins, M. E., Baller, E. B., Gell, M., Patrick, L. M., Shafiei, G., Gur, R. E., Gur, R. C., Roalf, et al
2023; 62: 101265
- **Connectional Hierarchy in Human Brain Revealed by Individual Variability of Functional Network Edges.** *bioRxiv : the preprint server for biology*
Yang, H., Wu, G., Li, Y., Ma, Y., Chen, R., Pines, A., Xu, T., Sydnor, V. J., Satterthwaite, T. D., Cui, Z.
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- **Hierarchical functional system development supports executive function.** *Trends in cognitive sciences*
Keller, A. S., Sydnor, V. J., Pines, A., Fair, D. A., Bassett, D. S., Satterthwaite, T. D.
2023; 27 (2): 160-174
- **Linking Individual Differences in Personalized Functional Network Topography to Psychopathology in Youth** *BIOLOGICAL PSYCHIATRY*
Cui, Z., Pines, A. R., Larsen, B., Sydnor, V. J., Li, H., Adebimpe, A., Alexander-Bloch, A. F., Bassett, D. S., Bertolero, M., Calkins, M. E., Davatzikos, C., Fair, D. A., Gur, et al
2022; 92 (12): 973-983
- **Caregiver monitoring, but not caregiver warmth, is associated with general cognition in two large sub-samples of youth** *DEVELOPMENTAL SCIENCE*
Keller, A. S., Mackey, A. P., Pines, A., Fair, D., Feczko, E., Hoffman, M. S., Salum, G. A., Barzilay, R., Satterthwaite, T. D.

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- **An analysis-ready and quality controlled resource for pediatric brain white-matter research.** *Scientific data*
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- **Deciphering the functional specialization of whole-brain spatiomolecular gradients in the adult brain** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
W. Vogel, J., Bloch, A., Wagstyl, K., Bertolero, M. A., Markello, R. D., Pines, A., Sydnor, V. J., Diaz-Papkovich, A., Hansen, J. Y., Evans, A. C., Bernhardt, B., Masic, B., Satterthwaite, et al
2022; 121 (25): e2219137121
- **Mobile footprinting: linking individual distinctiveness in mobility patterns to mood, sleep, and brain functional connectivity** *NEUROPSYCHOPHARMACOLOGY*
Xia, C., Barnett, I., Tapera, T. M., Adebimpe, A., Baker, J. T., Bassett, D. S., Brotman, M. A., Calkins, M. E., Cui, Z., Leibenluft, E., Linguiti, S., Lydon-Staley, D. M., Martin, et al
2022; 47 (9): 1662-1671
- **Article Developmental coupling of cerebral blood flow and fMRI fluctuations in youth** *CELL REPORTS*
Baller, E. B., Valcarcel, A. M., Adebimpe, A., Alexander-Bloch, A., Cui, Z., Gur, R. C., Gur, R. E., Larsen, B. L., Linn, K. A., O'Donnell, C. M., Pines, A. R., Raznahan, A., Roalf, et al
2022; 38 (13): 110576
- **Associations between neighborhood socioeconomic status, parental education, and executive system activation in youth** *CEREBRAL CORTEX*
Murtha, K., Larsen, B., Pines, A., Parkes, L., Moore, T. M., Adebimpe, A., Alexander-Bloch, A., Calkins, M. E., Davila, D. G., Lindquist, M. A., Mackey, A. P., Roalf, D. R., Scott, et al
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- **A developmental reduction of the excitation:inhibition ratio in association cortex during adolescence** *SCIENCE ADVANCES*
Larsen, B., Cui, Z., Adebimpe, A., Pines, A., Alexander-Bloch, A., Bertolero, M., Calkins, M. E., Gur, R. E., Gur, R. C., Mahadevan, A. S., Moore, T. M., Roalf, D. R., Seidlitz, et al
2022; 8 (5): eabj8750
- **Neurodevelopment of the association cortices: Patterns, mechanisms, and implications for psychopathology** *NEURON*
Sydnor, V. J., Larsen, B., Bassett, D. S., Alexander-Bloch, A., Fair, D. A., Liston, C., Mackey, A. P., Milham, M. P., Pines, A., Roalf, D. R., Seidlitz, J., Xu, T., Raznahan, et al
2021; 109 (18): 2820-2846
- **QSIprep: an integrative platform for preprocessing and reconstructing diffusion MRI data.** *Nature methods*
Cieslak, M., Cook, P. A., He, X., Yeh, F., Dhollander, T., Adebimpe, A., Aguirre, G. K., Bassett, D. S., Betzel, R. F., Bourque, J., Cabral, L. M., Davatzikos, C., Detre, et al
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- **Sex Differences in Functional Topography of Association Networks**
Shanmugan, S., Seidlitz, J., Cui, Z., Adebimpe, A., Bassett, D. S., Bertolero, M. A., Davatzikos, C., Fair, D. A., Gur, R. E., Gur, R. C., Li, H., Pines, A., Raznahan, et al
ELSEVIER SCIENCE INC.2021: S178
- **Pairwise maximum entropy model explains the role of white matter structure in shaping emergent co-activation states** *COMMUNICATIONS BIOLOGY*
Ashourvan, A., Shah, P., Pines, A., Gu, S., Lynn, C. W., Bassett, D. S., Davis, K. A., Litt, B.
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- **Leveraging multi-shell diffusion for studies of brain development in youth and young adulthood** *DEVELOPMENTAL COGNITIVE NEUROSCIENCE*
Pines, A. R., Cieslak, M., Larsen, B., Baum, G. L., Cook, P. A., Adebimpe, A., Davila, D. G., Elliott, M. A., Jirsaraie, R., Murtha, K., Oathes, D. J., Piiwaa, K., Rosen, et al
2020; 43: 100788
- **Characterizing the Role of the Structural Connectome in Seizure Dynamics**

Shah, P., Ashourvan, A., Mikhail, F., Pines, A., Kini, L., Shinohara, R. T., Bassett, D., Litt, B., Davis, K. A.

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- **Characterizing the role of the structural connectome in seizure dynamics** *BRAIN*

Shah, P., Ashourvan, A., Mikhail, F., Pines, A., Kini, L., Oechsel, K., Das, S. R., Stein, J. M., Shinohara, R. T., Bassett, D. S., Litt, B., Davis, K. A.

2019; 142: 1955-1972

- **Multi-unit relations among neural, self-report, and behavioral correlates of emotion regulation in comorbid depression and obesity** *SCIENTIFIC REPORTS*

Pines, A. R., Sacchet, M. D., Kullar, M., Ma, J., Williams, L. M.

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- **Multi-unit relations among neural, self-report, and behavioral correlates of emotion regulation in comorbid depression and obesity.** *Scientific reports*

Pines, A. R., Sacchet, M. D., Kullar, M., Ma, J., Williams, L. M.

2018; 8 (1): 14032

- **The ENGAGE study: Integrating neuroimaging, virtual reality and smartphone sensing to understand self-regulation for managing depression and obesity in a precision medicine model** *Behaviour Research and Therapy*

Williams, L., Pines, A., Goldstein-Piekarski, A., Goldman-Rosas, L., Kullar, M., Sachet, M., Gevaert, O., Bailenson, J., Lavori, P., Dagum, P., Wandell, B., Correa, C., Greenleaf, et al

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- **A Public Database of Immersive VR Videos with Corresponding Ratings of Arousal, Valence, and Correlations between Head Movements and Self Report Measures** *FRONTIERS IN PSYCHOLOGY*

Li, B. J., Bailenson, J. N., Pines, A., Greenleaf, W. J., Williams, L. M.

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