Franco **Pestilli**

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Publications

Journal Articles

1. Levitas, D., Hayashi, S., Vinci-Booher, S., Heinsfeld, A., Bhatia, D., Lee, N., Galassi, A., Niso, G., & Pestilli, F. (2024). ezBIDS: Guided standardization of neuroimaging data interoperable with major data archives and platforms. *Scientific Data*, *11*(1). https://doi.org/10.1038/s41597-024-02959-0
2. Renton, A. I., Dao, T. T., Johnstone, T., Civier, O., Sullivan, R. P., White, D. J., Lyons, P., Slade, B. M., Abbott, D. F., Amos, T. J., Bollmann, S., Botting, A., Campbell, M. E. J., Chang, J., Close, T. G., Dörig, M., Eckstein, K., Egan, G. F., Evas, S., … Bollmann, S. (2024). Neurodesk: An accessible, flexible and portable data analysis environment for reproducible neuroimaging. *Nature Methods*. https://doi.org/10.1038/s41592-023-02145-x
3. Cheng, H., Vinci-Booher, S., Wang, J., Caron, B., Wen, Q., Newman, S., & Pestilli, F. (2022). Denoising diffusion weighted imaging data using convolutional neural networks. *PLOS ONE*, *17*(9), e0274396. https://doi.org/10.1371/journal.pone.0274396
4. Niso, G., Botvinik-Nezer, R., Appelhoff, S., De La Vega, A., Esteban, O., Etzel, J. A., Finc, K., Ganz, M., Gau, R., Halchenko, Y. O., Herholz, P., Karakuzu, A., Keator, D. B., Markiewicz, C. J., Maumet, C., Pernet, C. R., Pestilli, F., Queder, N., Schmitt, T., … Rieger, J. W. (2022). Open and reproducible neuroimaging: From study inception to publication. *NeuroImage*, *263*, 119623. https://doi.org/10.1016/j.neuroimage.2022.119623
5. Sreenivasan, V., Kumar, S., Pestilli, F., Talukdar, P., & Sridharan, D. (2022). GPU-accelerated connectome discovery at scale. *Nature Computational Science*, *2*(5), 298–306. https://doi.org/10.1038/s43588-022-00250-z
6. Vinci-Booher, S., Caron, B., Bullock, D., James, K., & Pestilli, F. (2022). Development of white matter tracts between and within the dorsal and ventral streams. *Brain Structure and Function*, *227*(4), 1457–1477. https://doi.org/10.1007/s00429-021-02414-5
7. Bullock, D. N., Hayday, E. A., Grier, M. D., Tang, W., Pestilli, F., & Heilbronner, S. R. (2022). A taxonomy of the brain's white matter: Twenty-one major tracts for the 21st century. *Cerebral Cortex*, *32*(20), 4524–4548. https://doi.org/10.1093/cercor/bhab500
8. Babo-Rebelo, M., Puce, A., Bullock, D., Hugueville, L., Pestilli, F., Adam, C., Lehongre, K., Lambrecq, V., Dinkelacker, V., & George, N. (2021). Visual information routes in the posterior dorsal and ventral face network studied with intracranial neurophysiology and white matter tract endpoints. *Cerebral Cortex*, *32*(2), 342–366. https://doi.org/10.1093/cercor/bhab212
9. Echevarria-Cooper, S. L., Zhou, G., Zelano, C., Pestilli, F., Parrish, T. B., & Kahnt, T. (2021). Mapping the microstructure and striae of the human olfactory tract with diffusion MRI. *The Journal of Neuroscience*, *42*(1), 58–68. https://doi.org/10.1523/jneurosci.1552-21.2021
10. Allen, E. J., St-Yves, G., Wu, Y., Breedlove, J. L., Prince, J. S., Dowdle, L. T., Nau, M., Caron, B., Pestilli, F., Charest, I., Hutchinson, J. B., Naselaris, T., & Kay, K. (2021). A massive 7T fMRI dataset to bridge cognitive neuroscience and artificial intelligence. *Nature Neuroscience*, *25*(1), 116–126. https://doi.org/10.1038/s41593-021-00962-x
11. Eke, D. O., Bernard, A., Bjaalie, J. G., Chavarriaga, R., Hanakawa, T., Hannan, A. J., Hill, S. L., Martone, M. E., McMahon, A., Ruebel, O., Crook, S., Thiels, E., & Pestilli, F. (2022). International data governance for neuroscience. *Neuron*, *110*(4), 600–612. https://doi.org/10.1016/j.neuron.2021.11.017
12. Puzniak, R. J., McPherson, B., Ahmadi, K., Herbik, A., Kaufmann, J., Liebe, T., Gouws, A., Morland, A. B., Gottlob, I., Hoffmann, M. B., & Pestilli, F. (2021). CHIASM, the human brain albinism and achiasma MRI dataset. *Scientific Data*, *8*(1). https://doi.org/10.1038/s41597-021-01080-w
13. McPherson, B. C., & Pestilli, F. (2021). A single mode of population covariation associates brain networks structure and behavior and predicts individual subjects' age. *Communications Biology*, *4*(1). https://doi.org/10.1038/s42003-021-02451-0
14. Sani, I., Stemmann, H., Caron, B., Bullock, D., Stemmler, T., Fahle, M., Pestilli, F., & Freiwald, W. A. (2021). The human endogenous attentional control network includes a ventro-temporal cortical node. *Nature Communications*, *12*(1). https://doi.org/10.1038/s41467-020-20583-5
15. Hanke, M., Pestilli, F., Wagner, A. S., Markiewicz, C. J., Poline, J.-B., & Halchenko, Y. O. (2021). In defense of decentralized research data management. *Neuroforum*, *0*(0). https://doi.org/10.1515/nf-2020-0037

16. Bertò, G., Bullock, D., Astolfi, P., Hayashi, S., Zigiotto, L., Annicchiarico, L., Corsini, F., De Benedictis, A., Sarubbo, S., Pestilli, F., Avesani, P., & Olivetti, E. (2021). Classifyber, a robust streamline-based linear classifier for white matter bundle segmentation. *NeuroImage*, *224*, 117402. https://doi.org/10.1016/j.neuroimage.2020.117402

17. Caron, B., Stuck, R., McPherson, B., Bullock, D., Kitchell, L., Faskowitz, J., Kellar, D., Cheng, H., Newman, S., Port, N., & Pestilli, F. (2021). Collegiate athlete brain data for white matter mapping and network neuroscience. *Scientific Data*, *8*(1). https://doi.org/10.1038/s41597-021-00823-z

18. Schilling, K. G., Rheault, F., Petit, L., Hansen, C. B., Nath, V., Yeh, F.-C., Girard, G., Barakovic, M., Rafael-Patino, J., Yu, T., Fischi-Gomez, E., Pizzolato, M., Ocampo-Pineda, M., Schiavi, S., Canales-Rodríguez, E. J., Daducci, A., Granziera, C., Innocenti, G., Thiran, J.-P., … Descoteaux, M. (2021). Tractography dissection variability: What happens when 42 groups dissect 14 white matter bundles on the same dataset? *NeuroImage*, *243*, 118502. https://doi.org/10.1016/j.neuroimage.2021.118502

19. Hanekamp, S., Ćurčić-Blake, B., Caron, B., McPherson, B., Timmer, A., Prins, D., Boucard, C. C., Yoshida, M., Ida, M., Hunt, D., Jansonius, N. M., Pestilli, F., & Cornelissen, F. W. (2021). White matter alterations in glaucoma and monocular blindness differ outside the visual system. *Scientific Reports*, *11*(1). https://doi.org/10.1038/s41598-021-85602-x

Preprints

1. Vinci-Booher, S., McDonald, D. J., Berquist, E., & Pestilli, F. (2023). *Associative white matter tracts selectively predict sensorimotor learning*. https://doi.org/10.1101/2023.01.10.523345

2. Liang, X., Cohen, A., Heinsfeld, A. S., Pestilli, F., & McDonald, D. J. (20222). *Sparsegl: An r package for estimating sparse group lasso*. arXiv. https://doi.org/10.48550/ARXIV.2208.02942

3. Allen, E. J., St-Yves, G., Wu, Y., Breedlove, J. L., Dowdle, L. T., Caron, B., Pestilli, F., Charest, I., Hutchinson, J. B., Naselaris, T., & Kay, K. (2021). *A massive 7T fMRI dataset to bridge cognitive and computational neuroscience*. https://doi.org/10.1101/2021.02.22.432340

4. Parker, C., Mejia, J., & Pestilli, F. (2021). *The spread of COVID-19 increases with individual mobility and depends on political leaning*. https://doi.org/10.21203/rs.3.rs-147801/v1

Books

Book Chapters

Professional Presentations

White matter and neuroinformtics

New York University *2022*

brainlife.io an open and free cloud computing platform for reproducible neuroscience

The International Brain Initiative SfN Satellite Symposium *2022*

Conference Abstracts

Honors

Honorary Distinction *Johannesburg, ZA*

Society of African Neuroscientists *2023*

Funding

Developing an international governance framework to advance global brain and mental health data equity *Wellcome Trust,*

Funding: $2,643,470 *2023 - 2026*

A community-driven development of the brain imaging data standard (BIDS) to describe macroscopic brain connections *NIMH, R01MH126699*

Funding: $352,342 *2021 - 2023*

Service

Association for Psychological Science — *Washington D.C., US*
Chair — *2023 - present*

International Brain Initiaitive — *Austin, US*
Chair of the Data Sharing Working Group — *2023 - present*

Center of Biomedical Research Support (CBRS) — *Austin, US*
Advisory board — *2020 - present*

African Brain Data Network — *Lagos, NG*
Instructor — *2023 - 2024*

National Academy of Sciences — *Washington D.C., US*
Invited Speaker — *2024 - 2024*

Annual Interdisciplinary Conference — *Jackson, US*
Organizer — *2024 - 2024*

Massachusetts General Hospital — *Boston, US*
Invited Speaker — *2023 - 2023*

Society for Neuroscience — *Washington D.C., US*
Chair, Speaker and Workshop Organizer — *2023 - 2023*

Johns Hopkins University Applied Physics Laboratory — *North Laurel, US*
Panel Member / Speaker — *2023 - 2023*

International Brain Initiative — *DC, US*
Speaker and Panel Member — *2023 - 2023*

University of Alabama — *Tuscaloosa, US*
Instructor — *2023 - 2023*

The University of Texas at Austin — *Austin, US*
Instructor — *2023 - 2023*

University of Washington — *Seattle, US*
Instructor — *2023 - 2023*

The University of Texas Medical School — *Austin, US*
Keynote Speaker: Gearing Up for a Data Driven World in Medicine — *2023 - 2023*

Baylor College of Medicine — *Houston, US*
Colloquium Speaker — *2023 - 2023*

The Ohio State University — *Columbus, US*
Speaker — *2023 - 2023*

European Brain Council — *Brussels, BE*
Participant/International brain initiative representative — *2023 - 2023*

National Institutes of Health — *Bethesda, US*
Reviewer — *2023 - 2023*

Organization for human brain mapping — *Montreal, CA*
Invited Speaker — *2023 - 2023*

Organization of Human Brain Mapping — *Montreal, CA*
Panel Participant on International Data Infrastructure — *2023 - 2023*

Organization for Human Brain Mapping — *Montreal, CA*
Invited Speaker (Brain Imaging Data Structure Project) — *2023 - 2023*

The NIH BRAIN Initiative — *Bethesda, US*
Speaker and Panel Member — *2023 - 2023*

Organization for human brain mapping (OHBM) *DC, US*

Instructor / Speaker / Organizer *2023 - 2023*

Society of African Neuroscientists *Johanneburg, ZA*

Keynote Speaker *2023 - 2023*

The University of Texas System *Houston, US*

Keynote for COLA's Annual Alumni Banquet *2023 - 2023*

Association for Psychological Science *Washington D.C., US*

Symposium organizer *2023 - 2023*

University of Utah *Salt Lake City, US*

Instructor *2023 - 2023*

University of Connecticut Health Center *Farmington, US*

Colloquium Speaker *2023 - 2023*

University of Connecticut *Storrs, US*

Colloquium Speaker *2023 - 2023*

Institut du Cerveau *Paris, FR*

Colloquium Speaker *2023 - 2023*

National Institutes of Health *Bethesda, US*

Panel Reviewer *2022 - 2023*

Annual Interdisciplinary Summer Conference *Queenstown, NZ*

Speaker *2022 - 2022*

The University of Texas at Austin *Austin, US*

T&P Reorganization Committee *2022 - 2022*

Society for Neuroscience *Washington D.C., US*

Invited Speaker *2022 - 2022*

Flatiron Institute *New York, US*

Invited Speaker *2022 - 2022*

African Brain Data Network *Lagos, NG*

Instructor *2022 - 2022*

National Institutes of Health *Bethesda, US*

Reviewer *2022 - 2022*

Advanced Neuroscience Network *Austin, US*

Organizer and Speaker *2022 - 2022*

Nigerian Cardiac Society *Lagos, NG*

Instructor *2022 - 2022*

University of Oxford *Oxford, GB*

Colloquium Speaker *2022 - 2022*

National Institutes of Health *Bethesda, US*

Panel Reviewer *2022 - 2022*

National Institute of Biomedical Imaging and Bioengineering *Bethesda, US*

Panel Reviewer *2020 - 2021*

Mentoring and Teaching

Mentoring

Suna Guo

Qualifications Evaluation Committee member *2022 - 2022*

Teaching

Foundations of Psychological Data Science I

Instructor (new series of tutorials) *2022 - 2022*

Tutorials on Python, GitHub

Instructor (new series of tutorials) *2021 - 2021*

Professional development seminars

Organizer *2021 - 2021*

Digital Neuroanatomy

Instructor (New course) *2021 - 2021*