

Stanford



Adam C Richie-Halford

Postdoctoral Scholar, Developmental Behavioral Pediatrics

 Curriculum Vitae available Online

Bio

BIO

Adam Richie-Halford is a postdoctoral scholar in the Division of Developmental-Behavioral Pediatrics at Stanford University and an affiliate of the eScience Institute at the University of Washington. He received his B.S. in engineering physics from Embry-Riddle Aeronautical University, his M.S. in Physics from the California State University in Long Beach, and his Ph.D. in physics from the University of Washington, where he performed large-scale quantum Monte Carlo simulations of systems encountered in nuclear theory. Along the way he also served as an officer in the Air Force and as a Peace Corps volunteer in the Kingdom of Morocco.

Currently, Adam works with Professor Jason Yeatman to develop new statistical learning techniques for the analysis of neuroimaging data and new browser-based technologies to assist deep phenotyping of dyslexia. He seeks to understand the biophysical properties of the brain's white matter using large open datasets containing diffusion MRI images, such as the Human Connectome Project (HCP), the Healthy Brain Network (HBN) study, and the Adolescent Brain Cognitive Development (ABCD) study. He is also interested in developing open-source software tools to enable other scientists to analyze and share large datasets. Adam is a member of the Software and Data Carpentry communities.

STANFORD ADVISORS

- Jason Yeatman, Postdoctoral Faculty Sponsor

LINKS

- My personal website: richiehalford.org

Publications

PUBLICATIONS

- **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
2021
- **Multidimensional analysis and detection of informative features in human brain white matter.** *PLoS computational biology*
Richie-Halford, A., Yeatman, J., Simon, N., Rokem, A.
2021; 17 (6): e1009136
- **Evaluating the Reliability of Human Brain White Matter Tractometry.** *Aperture neuro*
Kruyer, J., Yeatman, J. D., Richie-Halford, A., Bloom, D., Grotheer, M., Caffarra, S., Kiar, G., Karipidis, I. I., Roy, E., Chandio, B. Q., Garyfallidis, E., Rokem, A.
1800; 1 (1)
- **Emergence of a Pseudogap in the BCS-BEC Crossover** *PHYSICAL REVIEW LETTERS*

Richie-Halford, A., Drut, J. E., Bulgac, A.

2020; 125 (6): 060403

● **A browser-based tool for visualization and analysis of diffusion MRI data** *NATURE COMMUNICATIONS*

Yeatman, J. D., Richie-Halford, A., Smith, J. K., Keshavan, A., Rokem, A.

2018; 9: 940

● **Classification of magnetic inhomogeneities and 0- π transitions in superconducting-magnetic hybrid structures (vol 94, 104518, 2016)** *PHYSICAL REVIEW B*

Baker, T. E., Richie-Halford, A., Bill, A.

2016; 94 (13)

● **MADNESS: A MULTIREOLUTION, ADAPTIVE NUMERICAL ENVIRONMENT FOR SCIENTIFIC SIMULATION** *SIAM JOURNAL ON SCIENTIFIC COMPUTING*

Harrison, R. J., Beylkin, G., Bischoff, F. A., Calvin, J. A., Fann, G. I., Fosso-Tande, J., Galindo, D., Hammond, J. R., Hartman-Baker, R., Hill, J. C., Jia, J., Kottmann, J. S., Ou, et al

2016; 38 (5): S123-S142

● **Long range triplet Josephson current and 0- π transitions in tunable domain walls** *NEW JOURNAL OF PHYSICS*

Baker, T. E., Richie-Halford, A., Bill, A.

2014; 16

● **Cascading proximity effects in rotating magnetizations** *EPL*

Baker, T. E., Richie-Halford, A., Icreverzi, O. E., Bill, A.

2014; 107 (1)

● **Classical Mechanical Analogies in Wide Dirty SFS Junctions**

Baker, T. E., Icreverzi, O. E., Richie-Halford, A., Bill, A.

SPRINGER.2012: 2183-2185

● **Properties of Magnetic-Superconducting Proximity Systems**

Bill, A., de Rojas, J., Baker, T. E., Richie-Halford, A.

SPRINGER.2012: 2177-2182

● **Space-time localization of inner heliospheric plasma turbulence using multiple spacecraft radio links** *SPACE WEATHER-THE INTERNATIONAL JOURNAL OF RESEARCH AND APPLICATIONS*

Richie-Halford, A. C., Iess, L., Tortora, P., Armstrong, J. W., Asmar, S. W., Woo, R., Habbal, S., Morgan, H.

2009; 7