**NIH Post-doctoral Fellowship in BRAIN Initiative: Theories, Models and Methods for Analysis of Complex Data from the Brain**

Applications for an NIH-funded post-doctoral position are invited for the Laboratory of Dr. Stephen José Hanson's  in the Department of Psychology and in RUBIC (Rutgers Brain Imaging Center)  at Rutgers University, Newark, N.J. USA.   The focus of research and training is in the area of computational neuroscience, and the development of brain network models based on graphical model selection using dynamical search procedures and the modeling of brain signals arising from neuroimaging data (e.g. fMRI).

These projects will be performed in the lab of Dr. Hanson and in conjunction with  Dr. Glymour's (CMU) causal discovery research group.   The ideal candidate will have a strong background in computation, statistics, probability theory, multivariate analysis and signal processing. Programming skill sets ( e.g., C++, R, Matlab, Debian, python) would be key to a successful Additionally, having background in neuroscience, neuroimaging or brain science more generally would be important to a successful application.

This is a 2 year position with a 3$^{rd}$ year possible. Starting date is flexible and with earliest start by November 1.   Applications will be accepted until a candidate is hired.

Inquiries should be addressed to Stephen José Hanson ([jose@rubic.rutgers.edu](mailto:jose@rubic.rutgers.edu)). Please also send applications including a CV, statement of research interests, and the names and full contact details of three referees to [jose@rubic.rutgers.edu](mailto:jose@rubic.rutgers.edu).

Relevant publications include:

Ramsey J., Hanson S.J. Hanson C., Halchenko Y.O., Poldrack R.A.,  & Glymour C. (2010). Six problems for causal inference from fMRI. *Neuroimage*, 49, 1545-1558.

Hanson, C., Hanson, S.J., Ramsey, J. & Glymour, C. (2013)   Atypical effective connectivity of social brain networks in individuals with autism. *J. Brain Connect*. 3(6):578-89.

Hanson, S. J. & Halchenko, Y. O. (2008). Brain reading using full brain support vector machines for object recognition: there is no face-identification area. *Neural Computation*, 20, 486-503

Finnerty, C.M., Hanson, C. & Hanson, S.J. (2014) Brain network response underlying decisions about abstract reinforcers *NeuroImage*, Volume 103, Pages 48–54

Poldrack, R.A., Halchenko, Y., & Hanson, S.J. (2010). Decoding the large-scale structure of brain function by classifying mental states across individuals. *Psychological Science*, 20, 1364-1372

Ramsey, J., Glymour, M., Sanchez-Romero, R. and Glymour, C. (in Press) A million variables and more: The fa st greedy search algorithm for learning high dimensional graphical  causal models, with an application to functional magnetic resonance images.  *International Journal of Data Science and Analytics.*