Patrick Stinson

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Education

B.A. Biology (Honors), University of Chicago, 2011.
Minor in Computational Neuroscience

M.Phil. Neurobiology and Behavior, Columbia University, 2013-2016.

Ph.D. Neurobiology and Behavior, Columbia University, 2013-.
Advisor: Liam Paninski

Awards

National Merit Scholar, 2007

Publications

Journal Articles

D. Soudry, S. Keshri, P. Stinson, M.H. Oh, G. Iyengar, L. Paninski, "Efficient 'Shotgun' Inference of Neural Connectivity from Highly Sub-sampled Activity Data", PLoS Comput Biol, vol. 11 no. 10, 2015.

Proceedings

Carlson D.E.*, Stinson P.W.*, Pakman A.*, Paninski L. Partition functions from Rao-Blackwellized tempered sampling. ICML, 2016

Stinson P.W., Bush K.A. Exogenous control and dynamical reduction of Echo State Networks. IJCNN, 2013.

Stinson P.W. ELBO amputation: an initialization scheme for variational autoencoders. [*in preparation*]

Abstracts

Buchanan E.K.*, Friedrich J.*, Kinsella J.*, Stinson P.*, Zhou P.*, Gerhard F., Ferrante J., Dempsey G., Paninski L. Constrained matrix factorization methods for denoising and demixing voltage imaging data. Computational and Systems Neuroscience (CoSyNe), 2018.

Stinson P.W., Osborne L.C. Efficient coding of visual motion signals in the smooth pursuit system. Computational and Systems Neuroscience (CoSyNe), 2012.

Skills

Scientific computing in python and matlab

Symbolic/neural network python libraries: Theano, Tensorflow, PyTorch

Linux system administration