DANIEL (DJ) STROUSE
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Education

9/2017 PhD in Physics
Princeton University, Princeton, NJ
Awards/Funding: Hertz Fellowship, Dept of Energy Comptutational Sciences Graduate Fellowship
Advisor: William Bialek

9/2012 Master's of Philosophy (MPhil) in Information Engineering
University of Cambridge, Cambridge, UK
Awards/Funding: Churchill Scholarship
Advisor: Máté Lengyel

5/2011 B.A. Physics (*magna cum laude*), B.S. Mathematics (*magna cum laude*)
University of Southern California (USC), Los Angeles, CA
Awards/Funding: USC Order of the Laurel and the Palm, USC Presidential Scholarship

Journal Publications & Conference Proceedings

DJ Strouse & D. Schwab. *The deterministic information bottleneck.* (in preparation)

X. Wu, **DJ Strouse**, & B. Mel. *Optimizing online learning capacity in a biologically-inspired neural network.* (in preparation)

AM Childs & **DJ Strouse**. *Levinson's theorem for graphs.* Journal of Mathematical Physics. Aug 2011. [arxiv] [journal]

Talks

3/2016 APS March Meeting (Baltimore, MD)
Title: Compression and regularization with the information bottleneck

1/2016 Physics-Informed Machine Learning (Santa Fe, NM)
Title: The deterministic information bottleneck

8/2012 Advanced Course in Computational Neuroscience Symposium (Będlewo, Poland)
Title: Optimal dynamics for fast network responses

4/2012 Microsoft Research Cambridge, Machine Learning Group (Cambridge, UK)
Title: The Information Bottleneck Method

8/2011 Methods in Computational Neuroscience Symposium (MBL, Woods Hole, MA)
Title: Sniff-modulations of the olfactory bulb vocabulary

8/2010 Stanford Amgen Scholars Symposium (Palo Alto, CA)
Title: Reliable brains from unreliable neurons – the search for synfire chains in the brain

7/2010 Open Science Summit (University of California, Berkeley, CA) [link]
Title: Open science is more than open publishing – meet CoLab

6/2010 Institute for Quantum Computing Colloquium (Waterloo, Ontario, Canada) [link]
Title: A Levinson's theorem for scattering on graphs

Posters

DJ Strouse & David Schwab. *The Deterministic Information Bottleneck.* APS March Meeting. San Antonio, TX. March 2015.

DJ Strouse & David Schwab. *The Deterministic Information Bottleneck: Optimizing Memory for Prediction.* Society for Neuroscience (SfN). Washington, DC. November 2014. [link]

DJ Strouse, Balazs Ujfalussy, & Mate Lengyel. *Dendritic subunits: the crucial role of input statistics and a lack of two-layer behavior.* Computational and Systems Neuroscience (Cosyne). Salt Lake City, UT. February 2013.

DJ Strouse, Jakob Macke, Roman Shusterman, Dima Rinberg, & Elad Schneidman. *Behaviorally-locked structure in a sensory neural code.* Sensory Coding & Natural Environment (SCNE). Vienna, Austria. September 2012.

DJ Strouse & Mate Lengyel. *Hierarchical generalized linear models of dendritic integration and somatic membrane potential.* Computational and Systems Neuroscience (Cosyne). Salt Lake City, UT. February 2012.

Bartlett Mel, Xundong Wu, & **DJ Strouse**. *Optimizing online learning capacity in a biologically-inspired memory structure.* Computational and Systems Neuroscience (Cosyne). Salt Lake City, UT. February 2012.

Xundong Wu, **DJ Strouse**, & Bartlett Mel. *Optimizing online learning capacity in a biologically-inspired neural network.* Society for Neuroscience (SfN). Washington, DC. November 2011.

Xundong Wu, **DJ Strouse**, & Bartlett Mel. *Optimizing online learning capacity in a biologically-inspired neural network.* Annual Joint Symposium On Neural Computation. San Diego, CA. June 2011.

DJ Strouse. *Reliable brains from unreliable neurons – the search for synfire chains in the brain.* Stanford Amgen Scholars Symposium. Palo Alto, CA. August 2010.

Professional

10/2015	Organizer, Hertz Foundation East Coast Fellows Retreat
3/2013	Organizer, Computational and Systems Neuroscience (Cosyne) workshop on *Dendritic computation in neural circuits*
12/2009-4/2012	Co-Founder, *CoLab*, an online set of tools designed to promote open and massively collaborative science

Additional Education

8/2013	Computational and Cognitive Neuroscience Summer School (CCNSS) Cold Spring Harbor Asia, Beijing, China
8/2012	Advanced Course in Computational Neuroscience (ACCN) FENS-IBRO European Neuroscience School Programme, Będlewo, Poland
8/2011	Methods in Computational Neuroscience (MCN) summer course Marine Biological Laboratory (MBL), Woods Hole, MA

Other Skills & Information

COMP. LANGUAGES	Matlab, R, Python, Mathematica
HUMAN LANGUAGES	English (fluent), Mandarin (conversational), Spanish (conversational)
HOBBIES	running, traveling, hiking, web/mobile app development