

Curriculum Vitae

Steve Pressé

Physics Dept., Indiana Univ. - Purdue Univ. Indianapolis,
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Current Position

2013 **Indiana Univ. - Purdue Univ. Indianapolis**
-present Assistant Professor, Physics Dept.

Education

2008 **University of California San Francisco, San Francisco CA**
-2012 Postdoctoral fellow, Biophysics (K.A. Dill group)

2003 **Massachusetts Institute of Technology, Cambridge MA**
-2008 Ph.D., Chemical Physics (R.J. Silbey group)

2000 **McGill University, Montréal QC**
-2003 B.Sc., Honors Bio-organic Chemistry, minor in German Language; GPA: 3.94/4.00

Select Publications

- S. Pressé**, J. Lee, K. Dill, “Nonadditive entropies yield probability distributions with biases not warranted by the data”, *Phys. Rev. Lett.*, **111**, 180604 (2013)
- M. Sen, R.A. Maillard, K. Nyquist, P.A. Rodriguez, **S. Pressé**, A. Martin, C. Bustamante, “Mechanisms of Force-Generation and Intersubunit Coordination in a AAA+ Protease”, *Cell*, **155**, 636 (2013)
- S. Pressé**, J. Lee, K. Dill, “Extracting conformational memory from single-molecule kinetic data”, *J. Phys. Chem. B*, **117**, 495 (2013)
- S. Pressé**, K. Ghosh, J. Lee, K. Dill, “Principles of maximum entropy and maximum caliber in statistical physics”, *Rev. Mod. Phys.*, accepted (2013)
- J. Lee, **S. Pressé**, “A derivation of the master equation from path entropy maximization”, *J. Chem. Phys.*, **137**, 074103 (2012)
- G.J. Peterson, **S. Pressé**, K. Peterson, K.A. Dill, “Simulated evolution of protein-protein interaction networks with realistic topology”, *PLoS ONE*, **7**, e39052 (2012)
- Hao Ge, **S. Pressé**, K. Ghosh, K.A. Dill, “Markov processes follow from the principle of maximum caliber”, *J. Chem. Phys.*, **136**, 064108 (2012) – *Selected by the Editors as a Research Highlight*.
- S. Pressé**, K. Ghosh, K.A. Dill, “Modeling stochastic dynamics in biochemical systems with feedback using maximum caliber”, *J. Phys. Chem. B*, **115**, 6202 (2011)
- G. J. Peterson, **S. Pressé**, K.A. Dill, “Nonuniversal power law scaling in the probability distribution of scientific citations”, *Proc. Natl. Acad. Sc.*, **107**, 16023 (2010)
- J.M. Hodgkiss, N.H. Damrauer, **S. Pressé**, J. Rosenthal, D.G. Nocera, “Electron transfer driven by proton fluctuations in a hydrogen-bonded donor-acceptor assembly”, *J. Phys. Chem. B*, **110**, 18853 (2006)
- S. Pressé**, R.J. Silbey, “Anomalous temperature-isotope dependence in proton-coupled electron transfer”, *J. Chem. Phys.*, **124**, 164504 (2006)
- S. Pressé**, R.J. Silbey, “Ordering of limits in the Jarzynski equality”, *J. Chem. Phys.*, **124**, 054117 (2006)

Scholarships, Grants, Awards

2013	Burroughs-Wellcome Travel Grant (\$ 12,000) Purdue Summer Research Grant (\$ 8,000)
2008-2010	FQRNT ¹ Postdoctoral Scholarship (Approx. \$ 59,000 total)
2007-2008	FQRNT Doctoral Scholarship (Approx. \$ 27,500 total)
2005-2007	NSERC ² Doctoral Scholarship (Approx. \$ 42,000 total)
2003-2005	NSERC Master's Scholarship (Approx. \$ 38,500 total)
2004	Outstanding Teaching Award, MIT Chemistry Dept.
2003	John Williamson Frederick Peacock Memorial Scholarship Award (Approx. \$ 5,000) Society of Chemical Industry Merit Award Anachemia Prize in Chemistry Lucien Piché Award (Approx. \$ 1,500) R.F. Robertson Award in Physical Chemistry
2002	Herbert J. Brennen Scholarship (Approx. \$ 2,000) Canadian Society for Chemistry, Silver Medal Frederic J. LeMaistre Award (Approx. \$ 1,000) Undergraduate research NSERC scholarship (Approx. \$ 4,500)

Invited talks, Conferences (Jul 2013-Now)

Invited Talk - Symposium, American Physical Society (APS), Denver CO, Mar. 2014

Organizer - Session Chair “Inferring Physical Models from Noisy Biological Data” –American Physical Society (APS), Denver CO, Mar. 2014

Poster - Biophysical Society (BPS), San Francisco CA, Feb. 2014

Invited Talk - Seminar, Integrative Physiology Dept., IU School Medicine, Indianapolis IN, Jan. 2014

Invited Talk - Seminar, Computer Science Dept., IUPUI, Indianapolis IN, Jan. 2014

Invited Talk - Seminar, Physics Dept., Ball State University, Muncie IN, Oct. 2013

Invited Talk - TSRC³ Workshop on “Single Molecule Dynamics”, Telluride CO, Jul. 2013

Invited Talk - TSRC Workshop on “Complexity of Dynamics and Kinetics in Many Dimensions”, Telluride CO, Jul. 2013

Select Membership and Initiatives

Member: Indiana Academy of Sciences, American Physical Society (APS), Biophysical Society (BPS).

Ad hoc reviewer: Phys. Rev. E, Phys. Rev. A, Phys. Rev. Lett., Proc. Natl. Acad. Sc., Phys. Bio.

2013-2014 **Elected Vice Chair (2013) and Chair (2014), Physics Section, Indiana Acad. of Sc.**

2013 **Hosted research summer HS students (DJ Angus Foundation, ACS Project SEED)**

Languages

Native fluency in **French, English** and **Italian**; solid working knowledge of **German** and **Spanish**.

¹Le Fonds québécois de la recherche sur la nature et les technologies

²Natural Sciences and Engineering Research Council of Canada

³Telluride Science Research Center