



Stuart Sevier

Biophysics Postdoctoral Research Fellow

Education

- 2014–2017 **Ph.D.-Physics**, *Rice University*, Houston, TX, USA.
Advisor: Herbert Levine
- 2010–2012 **M.S.-Physics**, *UCLA*, Los Angeles, CA, USA.
- 2006–2010 **B.S.-Physics, Mathematics**, *University of Texas*, Austin, TX, USA.

Professional Experience

- 2020- **Postdoctoral Research Fellow**, *Harvard Medical School*, Boston, MA, USA.
Advisor: Sahan Hormoz
- 2018–2019 **Visiting Postdoctoral Research Fellow**, *MIT*, Cambridge, MA, USA.
Advisor: Leonid Mirny
- 2017–2018 **Postdoctoral Research Fellow**, *CTBP*, Houston, TX, USA.
Advisor: Herbert Levine

Awards

- 2010–2013 **NSF GRFP**, *National Science Foundation Graduate Research Fellow*, ULCA.
- 2009–2010 **Intel**, *Intel Foundation Undergraduate Research Fellow*, UT Austin.

Publications

Building mechanochemical logic gates from gene networks, DNA loops and supercoiling, *Stuart A. Sevier*, Seth Coleman, Ido Golding, Oleg Igoshin, Herbert Levine

in preperation

Mechanical properties of DNA replication, *Stuart A. Sevier*
under review

Properties of gene expression and chromatin structure with mechanically regulated elongation, *Stuart A. Sevier*, Herbert Levine
Nucleic Acids Research, Volume 46, Issue 12, 2018

Mechanical properties of transcription, *Stuart A. Sevier*, Herbert Levine
Phys. Rev. Lett. 118, 268101-2017

Mechanical bounds to transcriptional noise, *Stuart A. Sevier*, David A. Kessler,
Herbert Levine

Proceedings of the National Academy of Sciences 113 (49), 13983-13988-2016

Modeling delayed processes in biological systems, Jingchen Feng, *Stuart A. Sevier*, Bin Huang, Dongya Jia, and Herbert Levine

Physical Review E, 2016 - APS

Properties of cooperatively induced phases in sensing models, *Stuart A. Sevier*,
Herbert Levine

Physical Review E, 2015 - APS

Non-Fermi-liquid quantum impurity physics from non-Abelian quantum Hall states, *Stuart A. Sevier*, Gregory Fiete

Physical Review B, 2011 - APS

Experience

Leadership

2016–Current **Mentor**, *Frontiers in Science*, Houston, TX.

Construct and supervise scientific projects for undergraduate students

2015–Current **Group Organizer**, *CTBP*, Houston, TX.

Organize and lead discussion amongst highly interdisciplinary team of scientists

2008–2010 **V.P., Secretary**, *SPS*, Austin, TX.

Organized meetings and special events

Miscellaneous

2009–2010 **Columnist**, *Daily Texan*, Austin, TX.

Wrote science based opinion and color articles for paper

Skills

Mathematics: Advanced knowledge of differential equations, linear algebra, probability, stochastic processes and mathematical modeling

Languages: Mathematica, Matlab, C++

Software: Microsoft Suite, Adobe Suite