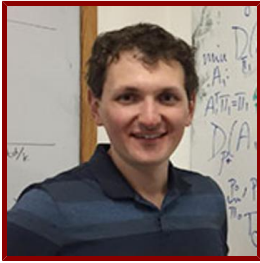


# Stanford

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## Dmitri Pavlichin

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### Bio

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#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , PHYS-PHD (2014)
- Bachelor of Arts, Harvard University , Physics (2007)

#### LINKS

- My LinkedIn: <https://www.linkedin.com/in/dmitri-pavlichin-97021196/>

### Publications

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#### PUBLICATIONS

- **Kinetic and thermodynamic framework for P4-P6 RNA reveals tertiary motif modularity and modulation of the folding preferred pathway.** *Proceedings of the National Academy of Sciences of the United States of America*  
Bisaria, N., Greenfeld, M., Limouse, C., Pavlichin, D. S., Mabuchi, H., Herschlag, D.  
2016; 113 (34): E4956-65
- **Single-molecule dataset (SMD): a generalized storage format for raw and processed single-molecule data.** *BMC bioinformatics*  
Greenfeld, M., van de Meent, J., Pavlichin, D. S., Mabuchi, H., Wiggins, C. H., Gonzalez, R. L., Herschlag, D.  
2015; 16: 3-?
- **Photonic circuits for iterative decoding of a class of low-density parity-check codes** *NEW JOURNAL OF PHYSICS*  
Pavlichin, D. S., Mabuchi, H.  
2014; 16
- **Roles of Long-Range Tertiary Interactions in Limiting Dynamics of the Tetrahymena Group I Ribozyme** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Shi, X., Bisaria, N., Benz-Moy, T. L., Bonilla, S., Pavlichin, D. S., Herschlag, D.  
2014; 136 (18): 6643-6648
- **Optical modular arithmetic** *Conference on Micro- and Nanotechnology Sensors, Systems, and Applications VI*  
Pavlichin, D. S., Mabuchi, H.  
SPIE-INT SOC OPTICAL ENGINEERING.2014
- **The human genome contracts again** *BIOINFORMATICS*  
Pavlichin, D. S., Weissman, T., Yona, G.  
2013; 29 (17): 2199-2202
- **Transformation of Quantum Photonic Circuit Models by Term Rewriting** *IEEE PHOTONICS JOURNAL*  
Sarma, G., Hamerly, R., Tezak, N., Pavlichin, D. S., Mabuchi, H.  
2013; 5 (1)

- **Specification of photonic circuits using quantum hardware description language** *Theo Murphy Discussion Meeting on Principles and Applications of Quantum Control Engineering*  
Tezak, N., Niederberger, A., Pavlichin, D. S., Sarma, G., Mabuchi, H.  
ROYAL SOC.2012: 5270–90
- **Single Molecule Analysis Research Tool (SMART): An Integrated Approach for Analyzing Single Molecule Data** *PLOS ONE*  
Greenfeld, M., Pavlichin, D. S., Mabuchi, H., Herschlag, D.  
2012; 7 (2)
- **Design of nanophotonic circuits for autonomous subsystem quantum error correction** *NEW JOURNAL OF PHYSICS*  
Kerckhoff, J., Pavlichin, D. S., Chalabi, H., Mabuchi, H.  
2011; 13
- **The dressed atom as binary phase modulator: towards attojoule/edge optical phase-shift keying** *OPTICS EXPRESS*  
Kerckhoff, J., Armen, M. A., Pavlichin, D. S., Mabuchi, H.  
2011; 19 (7): 6486-6494
- **The dressed atom as binary phase modulator: towards attojoule/edge optical phase-shift keying.** *Optics express*  
Kerckhoff, J., Armen, M. A., Pavlichin, D. S., Mabuchi, H.  
2011; 19 (7): 6478-6486
- **Optical 'bistability' with single atom absorbers** *Conference on Lasers and Electro-Optics (CLEO)*  
Kerckhoff, J., Armen, M. A., Pavlichin, D. S., Mabuchi, H.  
IEEE.2011
- **Designing Quantum Memories with Embedded Control: Photonic Circuits for Autonomous Quantum Error Correction** *PHYSICAL REVIEW LETTERS*  
Kerckhoff, J., Nurdin, H. I., Pavlichin, D. S., Mabuchi, H.  
2010; 105 (4)
- **Coherent-feedback formulation of continuous quantum error correction protocols** *Conference on Lasers and Electro-Optics (CLEO)/Quantum Electronics and Laser Science Conference (QELS)*  
Kerckhoff, J., Nurdin, H. I., Pavlichin, D. S., Mabuchi, H.  
IEEE.2010