Dylan Gorman

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Profile

Physicist interested in applying quantitative skills to study data-intensive, real world problems.

- **Background** Experimental quantum information processing
- **Skills** Statistical analysis of data, numerical programming, Python, SQL, JSON, numpy, scipy, GNU Scientific Library, data modeling, technical writing, oral presentation

Education

May 2017 **Ph.D, Physics**, *University of California*, Berkeley.

- Developed graphing program with PyQtGraph and PyQt for plotting experimental data in real time (https://github.com/HaeffnerLab/RealSimpleGrapher)
- Developed Python package for solving electrostatic properties of microfabricated ion traps (https://github.com/HaeffnerLab/trapsim/tree/master/gapless)
- Maintained group experimental code git repository
- Wrote Python programs to read in raw data and fit to theoretical models using LMFIT and Scipy.optimize
- Simulated quantum information processing experiments using the QuTIP Python library
- Used Bayesian methods to estimate model parameters from experimental data
- Linux systems administrator for the lab. Deployed and maintained central Ubuntu server for the lab which functioned as the central data repository

2013 **M.A., Physics**, *University of California*, Berkeley.

- Taught techniques in experimental data analysis to undergraduate physics students

2009 **A.B., Physics**, *University of California*, Berkeley.

- Built C and Python code to numerically optimize control of quantum systems via a gradient-descent algorithm.

Selected publications

- *Implications of surface noise for the motional coherence of trapped ions*
  I. Talukdar, **D. Gorman**, *et al.*
  Phys. Rev. A **93**, 043415 (2016)

- *Polarization of electric-field noise near metallic surfaces*
  P. Schindler, **D. Gorman**, N. Daniilidis, H. Häffner
  Phys. Rev. A **92** 013414 (2015)

- *Overcoming dephasing noise with robust optimal control*
  D. Gorman, K. C. Young, K. Birgitta Whaley.
  Phys. Rev. A **86**, 012317, (2012)