

NIKOS DANIILIDIS

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PROFILE

Scientist committed to extracting insights from data-intensive applications.

Background: atomic physics, condensed matter physics, electrical & computer engineering

Expertise: scientific programming & data analysis; modelling and characterization of complex processes; computer-aided control and optimization; scientific writing

Team worker: worked with large teams building complex experimental setups

Supervisor: guided graduate and undergraduate students in their projects

Presenter: 10+ years experience presenting at conferences & funding-review meetings

Manager: co-authored research grants, helped plan & set up UC Berkeley ion trapping lab

EDUCATION

Ph.D., Physics, *Brown University*, Providence, RI, 2008, *X. S. Ling group*

Sc.M., Physics, *Brown University*, Providence, RI, 2003

Diploma, Electrical and Computer Engineering,
National Technical University of Athens, Athens, Greece, 2001 (*5-year program*)

PROFESSIONAL EXPERIENCE

Post Doc (October 2009–present)

Department of Physics, University of California Berkeley, H. Häffner group

Junior Scientist (September 2007–September 2009)

IQOQI, R. Blatt group, Innsbruck, Austria

Post-Doc (October 2007–January 2008)

ETH, Zürich, A. Wallraff group, Switzerland

AWARDS

Marie Curie Intra European Fellowship for Career Development

April 2008–March 2010, *European Commission*

Forrest Award for Excellent Work Related to Experimental Apparatus

May 2008, *Brown University*, Providence, RI, USA

Award for Excellence as a Graduate Teaching Assistant

May 2002, *Brown University*, Providence, RI, USA

SKILLS

Scientific programming/Data analysis: Python, Matlab, R, SQL, Hadoop/MapReduce

Scientific writing: research articles, review articles, scientific commentaries, grant proposals

Modelling/Design: modelling-characterization of noise processes, electromagnetic simulations, computer-aided control, device design & development

Prototype building: rf & digital electronics, microfabrication, lasers, vacuum, cryogenics

Characterization: neutron scattering, surface treatment/analysis, low-level measurements

DATA EXPERIENCE

Data munging: xml, html, json, pdf, text

Data manipulation: Python Pandas, R, Matlab, SQL, Hadoop/MapReduce

Machine learning: Python scikit-learn, R

Personal page: <http://nikosd.me>

Github: <https://github.com/nikos-daniilidis>

Blog: <http://oligotropos.wordpress.com/>

PROFESSIONAL ACHIEVEMENTS

- ✧ Co-authored grants, worth in excess of \$ 1 M
- ✧ Participated in planning/building UC Berkeley ion trapping group
- ✧ Conducted/Analyzed data-intensive experiments: ion trap, neutron scattering, ultrasonics
- ✧ Coauthored fourteen publications (see <https://www.linkedin.com/in/ndaniilidis>)
- ✧ Developed methods/algorithms/Matlab library for ion-trap electrostatic control (<https://github.com/HaeffnerLab/trap-simulation-tools-matlab>)
- ✧ Guided, coordinated Python translation of library for ion-trap electrostatic control (<https://github.com/HaeffnerLab/trap-simulation-tools-python-27>)
- ✧ Developed, fabricated ion-trap chips for UC Berkeley, MIT, Uni Mainz, Uni Innsbruck
- ✧ Designed & built Surface-Science/Ion-trapping/UHV system
- ✧ Designed cryostat for ion trapping
- ✧ Designed & built cryogenic calorimeter

HOBBIES

Dancing, hiking, open-sea swimming, the outdoors