Nickolas V Fotopoulos, PhD

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Summary of Qualifications

- Ten years of programming experience, mostly for supercomputing clusters
- Seven years of experience in signal processing, algorithms, numerical and analytical simulation, statistical analysis of large data sets, optimization, and electromagnetic theory
- Five years in multiple, concurrent leadership and mentorship roles in international teams of up to 15 scientists to design, build, maintain, verify, and/or execute targeted analyses of data

Skills

- Programming: C, Python (plus C extensions), Matlab (plus C extensions), Mathematica, SQLite, LaTeX, bash, sed, make, gdb, and native packaging on various Linux and Mac OS X 32/64-bit platforms

Experience

Aug. 2010–Present — **California Institute of Technology**, Pasadena, CA
Postdoctoral scholar, LIGO Laboratory

- Leading team to increase sensitivity to merging neutron stars and black holes that are spinning for next-generation analyses of next-generation instruments
- Leading team to quantify and mitigate the impact of non-gravitational-wave correlation between detectors
- Developing monitors and characterization tools for pre-stabilized laser system

June 2010 — **University of Wisconsin–Milwaukee**, Milwaukee, WI
Doctor of Philosophy in Physics "Gravitational-wave astronomy"

- Led team to search for binary merger counterparts to short gamma-ray bursts

Aug. 2006 — **Massachusetts Institute of Technology**, Cambridge, MA
Master of Science in Physics "Searching for Stochastic Gravitational Waves Using Co-located Interferometric Detectors"

- Developed techniques to identify non-gravitational-wave correlations between detectors

June 2003 — **Carnegie Mellon University**, Pittsburgh, PA
Bachelor of Science in Physics with University Honors

Summer 2002 — **Johns Hopkins University Applied Physics Laboratory**, Laurel, MD
Internship designing ion detector hardware for NASA spacecraft

Summer 2001 — **Naval Research Laboratory**, Washington D.C.
Internship designing and building control and acquisition interfaces for equipment

Professional activities

- Authorship of approximately 50 peer-reviewed publications and delivery of numerous talks at national and international venues
- Software librarian for the open-source data analysis suite, PyLAL (>400,000 lines of code)
- Executive Committee of the Caltech-JPL Association for Gravitational-Wave Research
- Founded graduate student research seminar series at UWM