Christina Krawiec, Ph.D.

5+ years experience analyzing large data sets with Python, C++, and SQL

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Education

University of Pennsylvania — Ph.D, Physics, October 2018.

Rutgers, The State University of New Jersey — B.S., Astrophysics, *summa cum laude*, 2013.
History Minor

Experience

scienceSeeds — *Science Educator*, Oct. 2018 - July 2019. Curriculum development and after-school class instruction in addition to managing products, website, and social media.

Dept of Physics & Astronomy, University of Pennsylvania — *Ph.D. Research*, 2013-2018. Advised by Gary Bernstein. Measuring gravitational lensing magnification of high redshift objects in DES; Tested shear measurement codes.

Dept of Physics & Astronomy, Rutgers University — *Honors Thesis*, 2012-2013. Advised by Chuck Keeton. Analysed gamma-ray burst energy spectra to assess the feasability of measuring primordial black hole lensing.
Research Assistant, Summer 2011. Modeled gravitational lensing of planetesimals.
Aresty Summer Program, Summer 2010. Modeled lensing magnification effects of clumpy dark matter.

Dept of Astrophysics, American Museum of Natural History — *Research Experience for Undergraduates*, Summer 2012. Advised by Sebastien Lepine. Selected white dwarf candidates for brown or red dwarf companions.

Outreach

Philadelphia Mini Maker Faire — *Communications Volunteer*, May-June, 2018.

STEMCityPHL — *Tech Camp Mentor*, 2018. Helped local high school students with coding and web design.

The Franklin Institute — *Discovery Camp Visiting Scientist*, Summers 2015-2018. Presenting science to K-12 students by designing and leading activities every Friday morning.

Penn Education & Public Outreach in Physics & Astronomy (PEPOPA) — *Social Media Manager*, 2015-2018.
Science After Hours Liaison, 2017. Organized demonstrations, materials, and volunteers for Penn Physics at the Franklin Institute's monthly age 21+ events.

Rutgers University — *Peer Advisor, Aresty Research Program*, 2012-2013.
Volunteer Tutor, SAS Honors Program, 2010-2012. Coached peers on physics and calculus.

Publications

Astronomers' and Physicists' Attitudes Towards Education & Public Outreach: A Case Study with The Dark Energy Survey. A. Farahi, R. R. Gupta, **C. Krawiec**, A. A. Plazas, R. C. Wolf, 2018, JSO Vol. 2, 1-15

An Accurate and Practical Method for Inference of Weak Gravitational Lensing from Galaxy Images. Gary M. Bernstein, Robert Armstrong, **Christina Krawiec**, and Marisa C. March, 2016 MNRAS 459, 4467-4484

Technical Skills

Python, C/C++, SQL, Java, JavaScript, HTML/CSS, Adobe Creative Suite, Google Apps, Microsoft Office Suite, OpenOffice, IDL, LaTeX, GIMP, Pixelmator, iMovie