

# Catherine Elena Fielder



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<https://cfelder.github.io>  
<https://github.com/cfelder>

## EDUCATION

- 2014 – PRESENT **Doctor of Philosophy in Physics**  
Physics and Astronomy  
*University of Pittsburgh*
- 2016 **Master of Science in Physics**  
Physics and Astronomy  
*University of Pittsburgh*
- 2010 – 2014 **Bachelor of Science in Physics**  
PHI BETA KAPPA, SIGMA PI SIGMA, DEANS LIST  
Department of Physics  
*Texas Tech University*

## RESEARCH INTERESTS

The formation and evolution of galaxies and dark matter halos, including:

- Dark matter halo properties and their relationships
- The formation and evolution of the Milky Way
- Machine learning for astronomy

## AWARDS

- 2014 **Outstanding Research Talk**  
*Los Alamos National Lab*
- 2014 **Mary E. Warga Predoctoral Fellowship**  
*University of Pittsburgh*

## CONFERENCES AND TALKS

- TALKS SDSS-IV Collaboration Meeting – 2020  
Great Lakes Cosmology Workshop 12, RIT – 2019  
Great Lakes Cosmology Workshop 11, Mc Master University, Hamilton, Ontario Canada – 2016
- POSTERS Small Galaxies Cosmic Questions, Durham, United Kingdom – 2019  
Dark Matter 2018, Kingston, Ontario Canada – 2018
- TRAINING Green Bank Telescope Observer Training Workshop – Fall 2017

## ADDITIONAL SKILLS

- LARGE COLLABORATIONS SDSS-IV
- COMPUTER LANGUAGES Python, IDL,  $\text{\LaTeX}$ , Mathematica
- OBSERVING WIYN 3.5m telescope, Kitt Peak National Observatory, 1 week of observing for the Sweet Spot Survey

## RESEARCH POSITIONS

POST BACCALAUREATE SUMMER RESEARCHER 2014 (FT)

Los Alamos National Lab  
***Researcher for the Los Alamos Supernova Light Curve Project***

I did research on Type 1b and 1c supernovae simulations and spearheaded the development of opacity analysis software.

## REFERENCES

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### Dr. Jeffrey Newman

POSITION Professor  
EMPLOYER Department of Physics and Astronomy  
*University of Pittsburgh*  
EMAIL janewman@pitt.edu

### Dr. Brett Andrews

POSITION Research Faculty  
EMPLOYER Department of Physics and Astronomy  
spaceafter EMAIL andrewsb@pitt.edu

## PUBLICATIONS

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**Felder, Catherine E.**, Mao, Yao-Yuan; Newman, Jeffrey A., Zentner, Andrew R., Licquia, Timothy C. (2019). Predictably missing satellites: subhalo abundances in Milky Way-like haloes. *Monthly Notices of the Royal Astronomical Society*, 486(4), 4545-4568.

*Author name in bold*