

Somayeh Khakpash

Graduate Student at Lehigh University
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RESEARCH INTERESTS

- **Microlensing Exoplanets**
- **Stellar Astrophysics**
- **Astronomical Data Science and Machine Learning**

EDUCATION

- **Ph.D. in Physics, Lehigh University**, August 2015 – present
Expected Graduation Date: May 2020
Research: Microlensing Exoplanets,
Adviser: *Joshua Pepper*,
- **MSc. in Physics, Lehigh University**, Aug 2015 – Dec 2016
- **B.Sc. in Physics, Sharif University of Technology, Tehran, Iran**, Sep 2010 – Feb 2015

RESEARCH EXPERIENCE AND PROJECTS

- **Current project:** Recovering planetary parameters by fitting the simplest planetary model to WFIRST light curves supervised by Prof. Joshua Pepper and Dr. Mathew Penny.
- **LSST microlensing subgroup:** Developing an optimized observing strategy for the LSST survey that would be beneficial to transient science cases
- **B.Sc. Project:** Analyzing time series of lensed quasars with calculated time delays to detect a trace of transient small scale structure of Cold Dark Matter, supervised by Prof. Sohrab Rahvar

HONORS AND AWARDS

- AAS FAMOUS Grant 2019
- **LSSTC Data Science Fellowship Program 2017**
- Lehigh college of Arts and Sciences Deans Summer Fellowship 2017
- Ranked among the three top marks in the first Astronomy summer school held by the International Occultation Timing Association in MIDDLE EAST (IOTA/ME), Karaj, Iran, August 2013

SKILLS

- **Programming software:** Python, C++, MATLAB, R, LaTeX
- **Professional software:** ImageMagick, MaxIm DL, IRIS, ParaView, Glue, Bokeh
- **Professional Python Packages:** Astropy, AstroML, scikit-learn, George

SELECTED COURSES

- Exoplanets, Stellar Structure & Evolution, Spectroscopy & Stellar Atmospheres, Electricity and Magnetism I & II, Astrophysics I, Plasma Physics, An introduction to Astronomy, Cosmology

ATTENDED CONFERENCES AND WORKSHOPS

- **American Astronomical Society Conference, Jan 2019, Seattle, WA**
- **LSST TVS Workshop, Jun 2018, Bethlehem, PA**
- **American Astronomical Society Conference, Jan 2018, Washington DC**
- **Sagan Exoplanet Workshop Microlensing in the Era of WFIRST, Aug 2017, Pasadena, CA**
- **KELT Workshop, Jun 2017, Bethlehem, PA**
- **KELT Workshop, Aug 2016, Nashville, TN**
- **AstroPhilly Conference, Aug 2016, Philadelphia, PA**
- **Astronomy Summer School, Aug 2013, Karaj, Iran**