Raphael Baer-Way

CONTACT INFORMATION	Raphael Baer-Way 2441 Carleton Street Berkeley, California Tel: 636-326-2150	Homepage: https://18rway.github.io/ Linkedin: https://www.linkedin.com/in/raphael-baer-way-b44b13187/ ✉ E-mail: 18rway@berkeley.edu

RESEARCH INTERESTS

- **Undergraduate Researcher**: Light Echos, Supernovae, Variable stars.

EDUCATION

University of California, Berkeley, Berkeley, CA   2018–2022 (expected)

- B.A. in Department of Astrophysics and Physics, GPA: **3.878/4** – via 137 credits.

- Research Advisor: Prof. Alex Filippenko.

TECHNICAL SKILLS

- *Programming Languages*: Python, HTML.

- *Technical Softwares*: DS9, Iraf, Astropy.

SELECTED PUBLICATIONS

1. **Baer-Way/deGraw** *et. al,*. "HST followup of 37 intriguing SNe at late-times". *Prepared for submission*, 2022.

2. **Van Dyk, deGraw+Baer-Way** *et. al,*. "The Dissapearance of six supernova progenitors". *Monthly Notices of the Royal Astronomical Society*, December 2022.

3. **Aryan** *et. al,*. "Progenitor mass constraints for the type Ib intermediate-luminosity SN 2015ap and the highly extinguished SN 2016bau". *Monthly Notices of the Royal Astronomical Society*, 2021.

4. **Murakami** *et. al,*. "PIPS, an advanced platform for period detection in time series - I. Fourier-likelihood periodogram and application to RR Lyrae stars". *Monthly Notices of the Royal Astronomical Society*, 2022.

5. **Zheng** *et. al,*. "The Lick Observatory Supernova Search follow-up program: photometry data release of 70 SESNe". *Monthly Notices of the Royal Astronomical Society*, 2022.

RESEARCH EXPERIENCE

- **Variable Star Analysis**   2020-2022
  Did Analysis of M3 Temperature and O-C Diagrams for AAS Poster.
  - Won Chambliss Award and contributed to published paper on period-detecting algorithm(Murakami et al. 2022).

- **HST Supernovae Analysis**   2020-2022
  Performing photometry and locating 37 supernovae from HST WFC3 images.
  - Paper in progress on all SN observed, Paper published on SN2015ap

- **Supernovae Progenitor Analysis**   2022
  Found that the progenitor had dissapeared for 6 supernovae using HST image
  - Paper submited 2022

- **Light Echo Analysis**   2022
  Analyzing light echo of SN2012aw and its evolution over time
  - Paper in progress

- **Nickel Observer**   2019-2021
  Checked out Observer on Nickel Telescope at Lick Observatory, observed 15+ times.
  - Observing various supernovae and analyzing images for Zwicky Transient Facility

TEACHING EXPERIENCE	• **Astron 10 TA/UGSI** Fall 2022 Taught 2 sections for Astron 10:Intro to General Astronomy as well as helping with logisitics for the course

TEACHING EXPERIENCE

- **Astron 10 TA/UGSI** — Fall 2022
  Taught 2 sections for Astron 10:Intro to General Astronomy as well as helping with logisitics for the course

- **Astron 9 TA** — Summer 2022
  Co-taught Astron 9:Intro to Python for Astrophysicists, grading and leading lecture as well as supplemental discussions

- **Python Instructor** — 2020-2022
  Instructor for Python Decal(student-led) course for Astrophysicists for 4 semesters at UC Berkeley

- **Boys Club Mentor and Tutor** — 2016-2018
  Mentor for many young boys at the Boys Club of New York

HONORS AND AWARDS

- ***Dean's List*** at UC Berkeley. — 2018

- ***Award for Innovation and Creativity in Science*** from Rochester Institude of Technology. 2017

- ***Shared Chambliss Astronomy Achievement Student Award*** from American Astronomical Society. 2021

REFERENCES

Dr. **Alex Filippenko**
UC Berkeley
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Dr. **Aaron Parsons**
UC Berkeley
E-mail: aparsons@berkeley.edu