



HEISING-SIMONS
FOUNDATION

Astronomy and Exoplanet Research Priorities

NAS Exoplanet Science Strategy Committee

Cyndi Atherton, Science Program Director

April 20, 2018

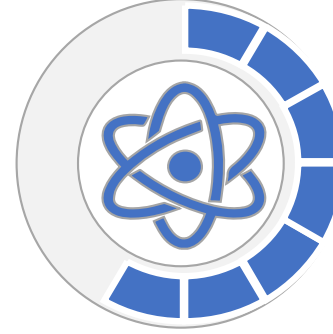
Our programs



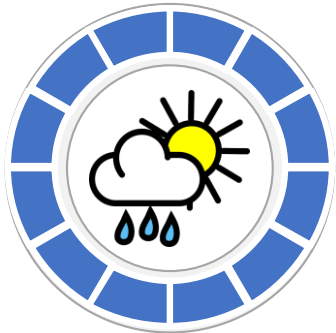
Science Portfolio



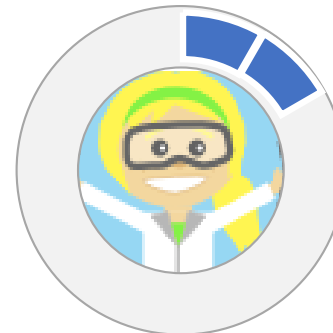
**Astronomy
and
Cosmology**



**Fundamental
Physics**

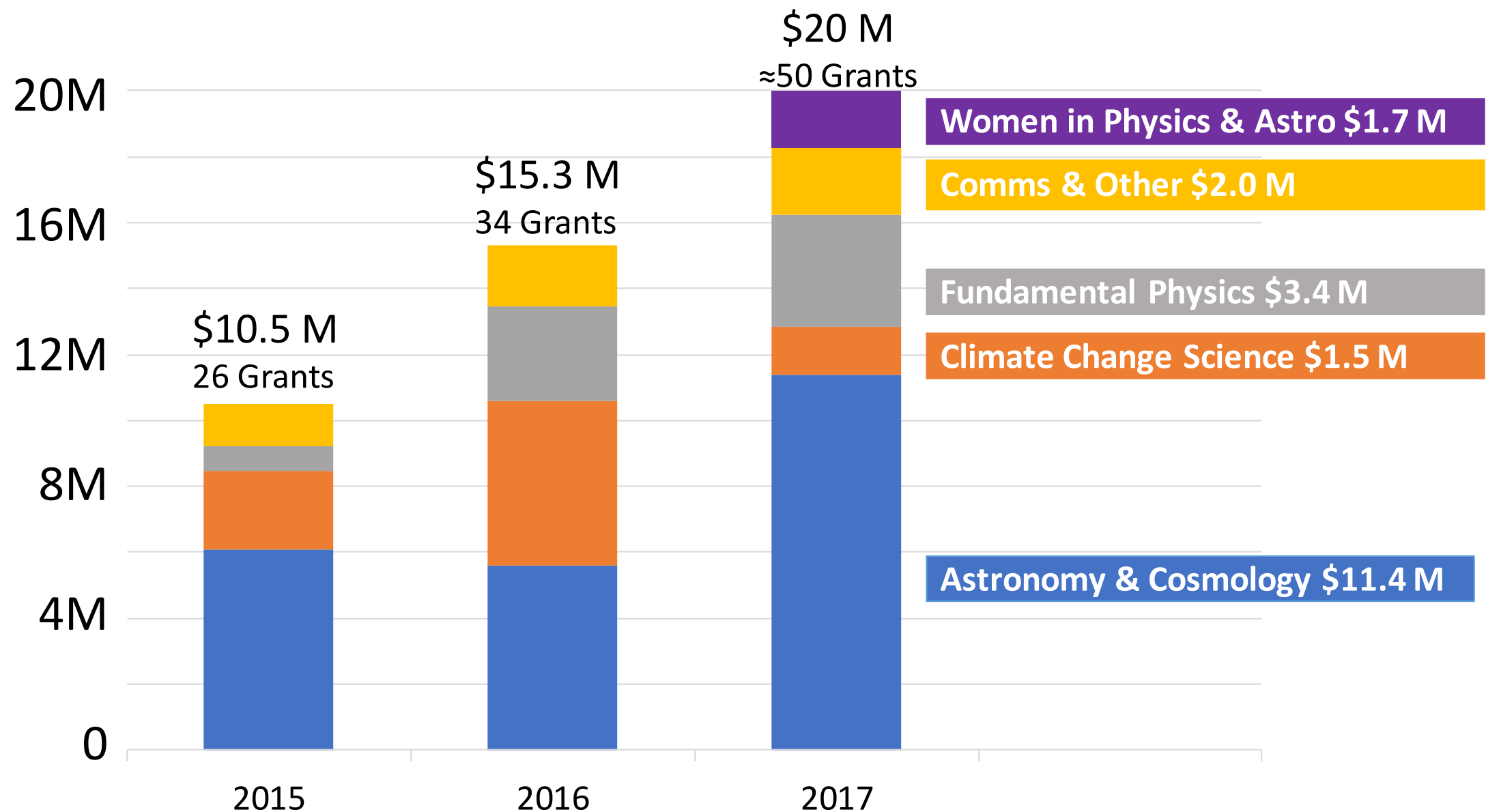


**Climate
Change
Science**



**Women in
Physics and
Astronomy**

Recent Science Investments





Mission

To advance fundamental knowledge by supporting exceptional, early career scientists to explore and conduct novel research that leads to ground-breaking discoveries.



Goals

Strengthen and grow a scientific field

Elevate and launch exceptional, early career scientists into leadership positions

Encourage collaboration and the exchange of ideas



Strategy

1) Design a highly competitive and prestigious fellowship program with:

- Competitive selection criteria
- Flexible resources (research, childcare, etc.)

2) Partner with top tier institutions to:

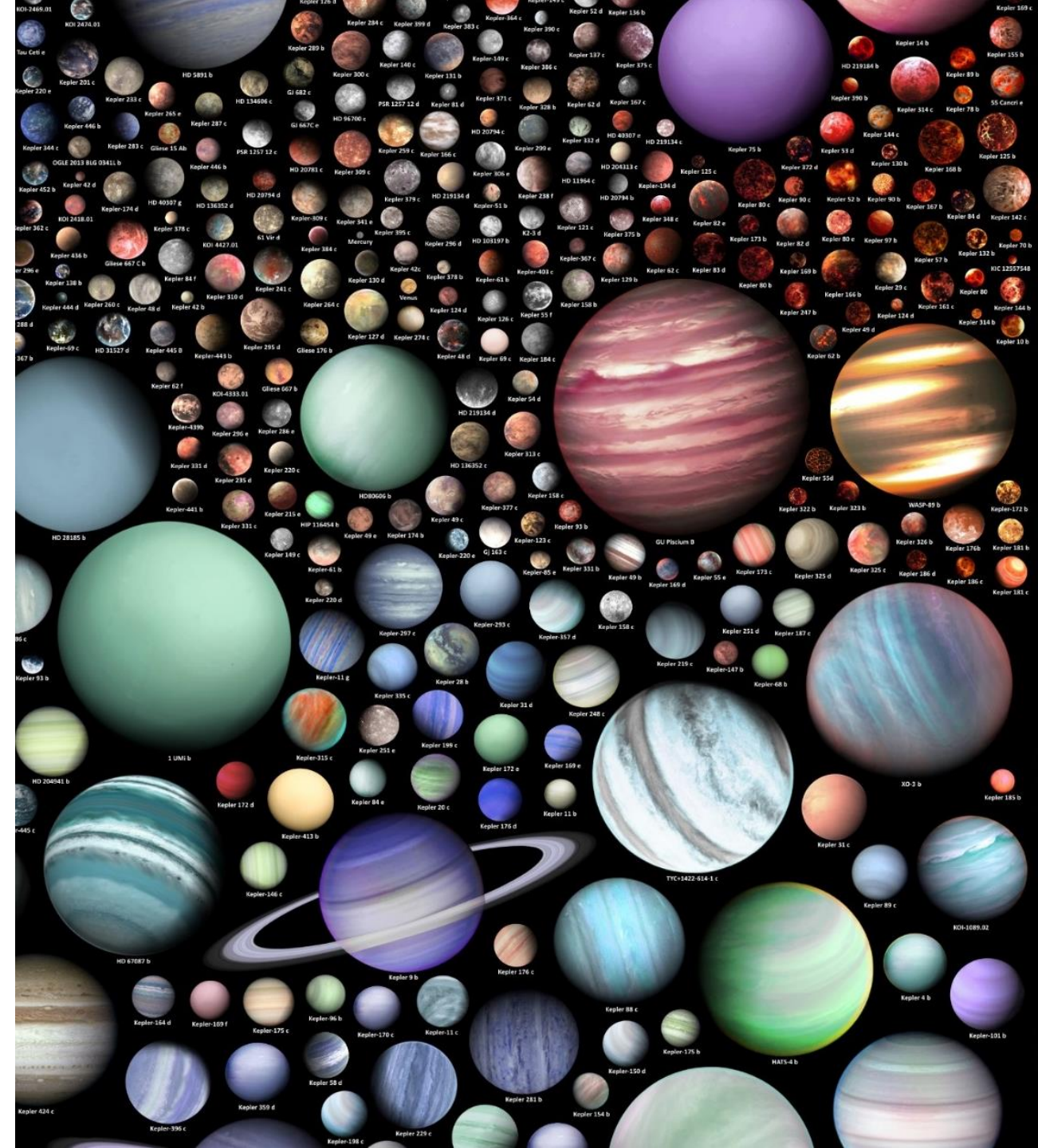
- Identify promising, creative candidates
- Create an environment to ensure success of individuals (mentorship, resources, etc.)

3) Promote visibility by:

- Hosting annual summit
- Design communications plan

What does the Fellowship provide?

- Up to **\$375,000** over three years
- **Time** to establish distinction and leadership
- **Mentorship** by established faculty member
- **Annual summit:**
 - **Network**
 - **Collaborate**
 - **Exchange ideas**





51 Pegasi b

Fellowship in Planetary Astronomy

2016



Berkeley
UNIVERSITY OF CALIFORNIA

Caltech

MIT
Massachusetts
Institute of
Technology

Yale



51 Pegasi b

Fellowship in Planetary Astronomy

2017

2016



Good Intentions Are Not Enough: A note about the 51 Pegasi b Fellowship



by [Cyndi Atherton](#)
February 2, 2018 in [Science](#)

We are tremendously proud of the eight new 51 Pegasi b Fellows announced earlier this week. They are among the finest in the field, and we celebrate their selection. But we also realize that our program has room for improvement with respect to gender diversity, and we'd like to thank our astronomy colleagues for calling us on where we have fallen short. Their feedback has brought reflection, self-critique, and, hopefully, change and improvement. We are especially appreciative of the feedback because our Foundation is funding projects to address gender inequities in physics and astronomy in the U.S.

Upcoming Events



51 Pegasi b process working group May 2018



51 Pegasi b Annual Summit
August 15-17, 2018

Building on August 2017 events



Some Examples of our Planetary Astronomy Grants

Large Scale Instrumentation



- Direct imaging
- Indirect imaging
- Stand alone telescopes

\$300k - \$2.5M

Fundamental Research



- Telescope time
- Developing algorithms and visualization for satellite products
- Research arising from new instrumentation

\$300k – 600k

Workshop and Convenings



- Emerging Researchers in Exoplanets
- UCSC Summer Exoplanet Workshop

\$50k – 100k

Communication & Linkages



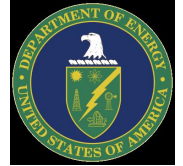
- Museum exoplanet exhibits
- National Academy of Sciences Decadal Study

\$100k – 200k

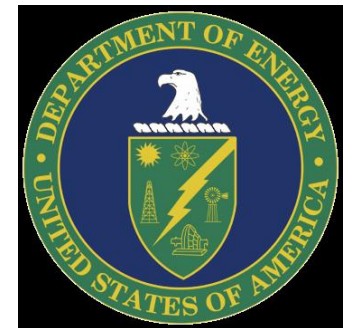
How do we source and prioritize grants (since we don't accept unsolicited proposals)?



Science Advisory Board



Co-funding examples



Questions?

