

# Early Career Researcher Panel: National Fellowships

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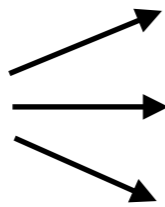
*University of Guelph, Canada*

UNIVERSITÄT GREIFSWALD  
Wissen lockt. Seit 1456



MICRA 2023, ECT\* Trento, 11-15 Sep 2023

# National Fellowships (US)

- NASA Hubble 
  - Einstein
  - Hubble
  - Sagan

CV

Past Research (4p)

Proposed Research (4p)

Recommendation Letters

Host Institution Letter

- NSF AAFP (US citizens only!)

CV

Research proposal including

Broader Impacts (10p)

Host Institution Letter

- Others (US): NASA Postdoctoral Program, NRAO Jansky (Radio Astronomy), ...
- Others (Canada): CITA NF, NSERC PDF (Canadians only)
- Others (EU): Marie Curie Fellowships (international), ...

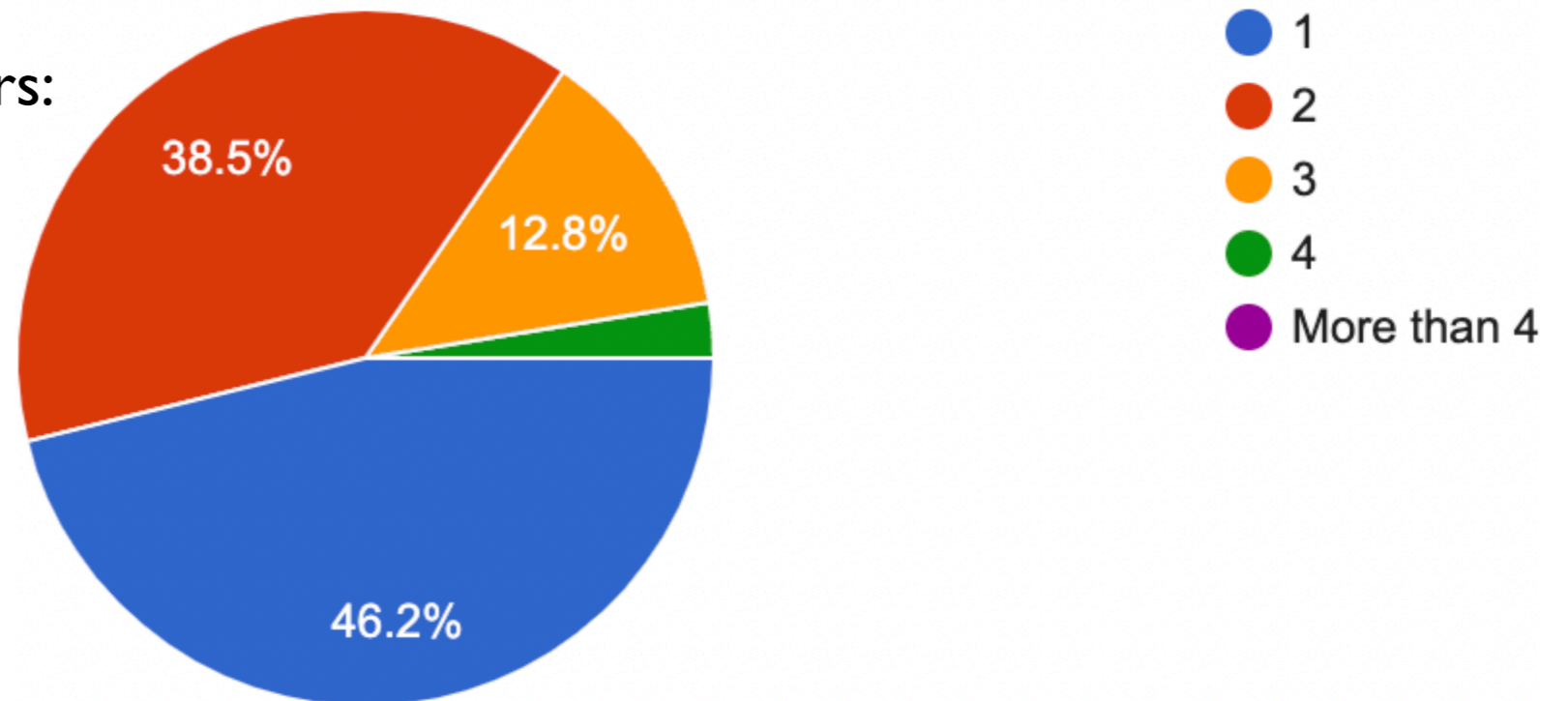
deadlines are early (starting mid-Oct), process is bureaucratic

→ **start early!**

# National Fellowships (US)

- Programs highly **oversubscribed**:  
don't be shy—many candidates get turned down, consider to (re)apply

NASA Hubble Fellowship holders:  
How often did you apply?



- Reviewed by **panels** using a **rubric**
  - experts *and* non-experts!
  - Proposed Scientific Research (45%)
  - Preparation and Past Research (30%)
  - Leadership Potential (25%)
  - Golden Buzzer

- familiarize yourself with rubric criteria
- need to communicate significance well to broad researcher audience

# National Fellowships (US)

- Programs have a **science scope**: make sure to be familiar with the science foci (theory *and* observations/facilities/missions!) and relate your science to these
- Host **Institute and PI fit**:
  - theory vs. observationally focused departments/groups
  - resources & feasibility: computing resources/observational facilities
  - institutional climate, support network?
  - think about this early (discuss with your advisor; conferences, talks, ...)
- Reference **Letters**:
  - need very strong letters from established researchers, potentially covering different aspects
  - make sure your letter writers are familiar with the rubric (can change!), so they can tailor their letter
  - issue of 'European reservation', other geographic/cultural biases
- Past application materials/advice:
  - get ahold of previous successful applications and advice:
    - NHFP site: advice for applicants
    - Advice by previous fellows: <https://www.nhfp-equity.org/resources-for-applicants>

# National Fellowships (US)

## Additional thoughts:

- Be crystal clear, don't expect the panel to read between the lines
- Make a clear case for broad significance/impact and timeliness, make explicit connection to the science priorities of program (both theory & observations)
- Be ambitious (yet grounded), think about uniqueness, main message up front
- Need a good narrative for both past and proposed research; how is this a significant step from your thesis?
- Have a concrete set of proposed projects/papers and a timeline
- Think about potential pitfalls and mitigation strategies, feasibility
- Include explicit statement on Host Institution and PI fit, how this enables (your) unique research
- Include explicit statement on feasibility (observing time / computational resources etc.)
- Leadership: can be purely scientific, but also outreach, mentorship, service...
- Start early and get critical feedback from peers, advisor(s), people inside and outside your field...
- Choose your letter writers carefully, approach them early, make sure they can write a *strong* letter