

NASA Hubble Program Fellowship

- Since 2018, the NHFP postdoctoral fellowship program now covers all of NASA astrophysics. Sponsored by NASA, administered at STScI.
- The 3 original categories of fellowships are preserved under the NHFP corresponding to their relevant science questions
 - ***How does the Universe work? – Einstein Fellows***
 - ***How did we get here? – Hubble Fellows***
 - ***Are we alone? – Sagan Fellows***
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- Hubble Lead **Andy Fruchter** at STScI, Sagan Lead **Dawn Gelino** at IPAC and Einstein Lead **Paul Green** at CXC

NHFP Selection

- **2020** Fellows selected in Miami last January in NOLA
 - 50 reviewers, 7 panels, 8 Chairs
 - 380 applicants, 28 Offers, 4 declines

- **2021** Fellows
 - Application deadline Nov 4, 2020, Letters due Nov 12
 - Selection next January 19-22, 25-26
 - Recruiting ~complete for 7 panels

NHFP Selection Panels

- Compact Objects & /Accretion
 - Physics & Cosmology
 - Galaxies/IGM
 - Milky Way & Stellar Populations
 - Stellar Physics
 - Proto-planetary/Debris Disks
 - Exoplanets
- ⇒ Merging Panel

NHFP Seeks to *Spread the Wealth*

- At most 2 new fellows will be approved for any single institution in a given year.
- No more than 5 fellows at any single host institution, except for short periods of overlap.
- Thus in any given year, some institutions may only be allowed to take one new fellow.
- We expect that the following institutions will only be able to host one new (2021) fellow: *Princeton*.

Selected Fellows

<u>Year</u>	<u>Einstein</u>	<u>Hubble</u>	<u>Sagan</u>	<u>Total</u>
2020	8	7	8	23*
2019	7	11	6	24
2018	7	12	5	24
2017	8	17	3	28
2016	12	15	6	33
2015	14	17	6	37

NHFP Symposium

- **2020** Symposium 2d merged, 1st virtual
- Sep 21-25, noon-4pm EDT
- ~70 talks (abstract deadline was Fri Sep 20)
- Non-science sessions
 - NHFP Against (Anti-Black) Racism
 - Benefits & Policies (w/STScI Admins & Program Scientist Pat Knezek)
 - Open Mic (E/PO work, pandemic cooking, songs,...)

Potential Benefits Changes

● Allow applications up to 4 years post-PhD for extenuating personal circumstances*	✓
● All NHFP hosts must offer employees status	✓
● Support grad student travel*	?
● Pay for collaborator visits*	?
● Expand hosts to include NASA research centers - Goddard, Marshall, Ames	?
● Pool of funds to support BIPOC mentoring	?

* *Intention is to be more “family-friendly”.*

NHFP Review by NASA

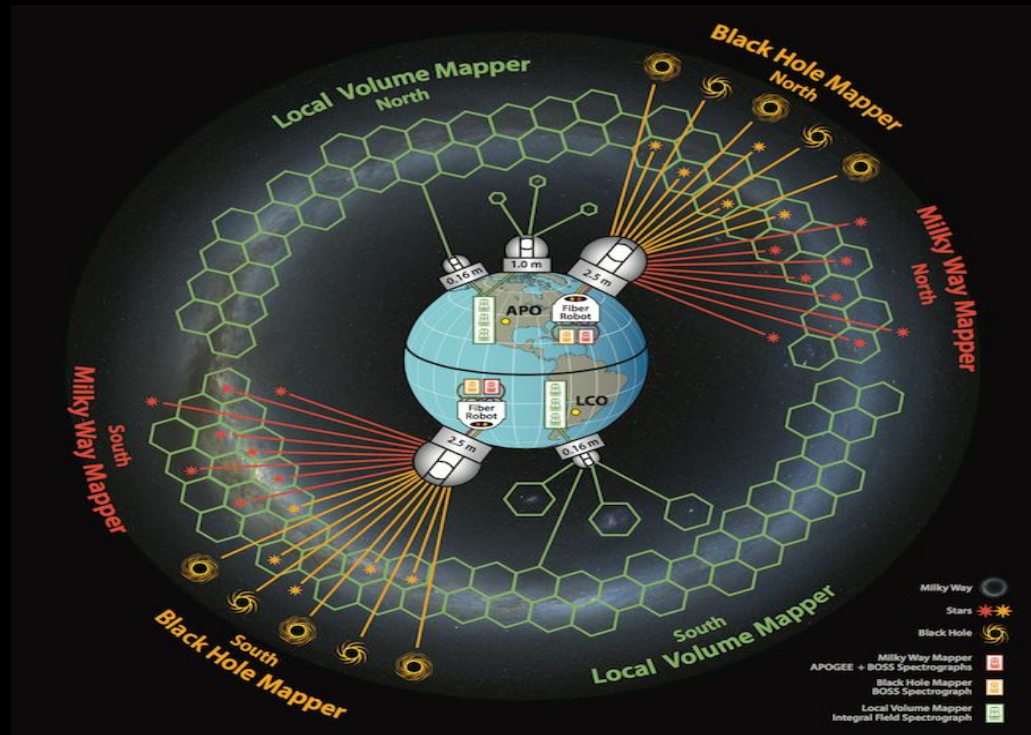
- NASA will hold a review of the NHFP in Spring 2021
- Intent is not to judge the value of the program, which is already known to be strong, but to identify ways it might be improved
- Both Leads and Fellows themselves have identified a number of potential improvements, some of which have been implemented. Others may be impossible to achieve, but some are surely feasible
- Reviewers are being solicited now

SDSS-V 2020 - 2025

<http://www.sdss.org/future>

All-Sky Spectroscopy

- ❑ **Black Hole Mapper**
Repeat QSO spectra
eROSITA followup
- ❑ **Milky Way Mapper**
stars in IR at high-res
- ❑ **Local Volume Mapper**
IFU of nearby galaxies



SDSS-V, SAO + CSC

- ❑ SAO joining SDSS-V as a full member, includes CXC/MIT
- ❑ CXC chipping in 50% of membership cost (\$115k/yr)

CSC: *315k sources through 2014* <http://cxc.harvard.edu/csc2/>

- ❑ Only covers ~2% of sky
- ❑ Much better sensitivity and spatial resolution than eROSITA!
- ❑ ~45% have optical counterparts with mag <21
- ❑ Stellar and XRB CSC counterparts in the Galactic Plane represent a unique treasure trove
- ❑ Best optical/IR counterparts being identified now with CatSci group
- ❑ Timely expansion of the CSC to newer archival data is important.
- ❑ CXC will serve SDSS-V data products (spectral properties and flux-calibrated digital spectra) to the community on a regular schedule