

Einstein Fellowship Program

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Aspiring as ever to political correctness (a much-derided form of empathy), I wondered whether “Fellowship” is a gendered term, since a “fellow” is also used these days to mean a “guy”. But its usage dates way back¹, to c. 1200, when *feolahschipe* meant “companionship”. The sense of “a body of companions” is from the late 13c, which evolved by the 1530s to describe a state of privilege in English colleges.

NASA’s Einstein Fellowship fits these definitions and more. As Project Scientist for the Program over the past few years, I am pleased to be facilitating up to 3 years of science research for each of a dozen fellows per year at the U.S. institution of their choice. Einstein Fellows are awarded funds and freedom to pursue their scientific muses, and the results are both impressive and inspiring, as evidenced by their prodigious publications and stunning presentations at the annual Einstein Fellows Symposium.

2017 Applications and Selection

Einstein Fellows’ are selected to perform research broadly related to the science goals of the NASA Physics of the Cosmos program. This includes high energy astrophysics relevant to *Chandra*, Fermi, *XMM-Newton*, and future NASA X-ray missions, cosmological investigations relevant to Planck, WFIRST, or new dark energy missions, and gravitational astrophysics relevant to LISA, Pathfinder and subsequent related missions. The proposed research may be observational, instrumental, theoretical, archival or may target sources from these missions at other wavelengths.

Applications for the 2017 Einstein Fellowships were due on Nov 3, 2016, and 156 complete applications were received. These were judiciously assigned to 14 panelists, who met at the CfA on Jan 10-11, 2017 for the difficult job of choosing 8 Einstein Fellows for 2017. The CXC’s Andrea Prestwich ably shepherded the proceedings, for which I am grateful. And many thanks as well to the selection panel for all their hard work and diligence. As of this writing, 8 offers have been accepted (4 women, 4 men), amid the usual juggling of preferred host institutions, since we award only one fellowship per host per year. NASA Headquarters will coordinate an official announcement of the winners in conjunction with other fellowship awards sometime in March 2017.

Changes Afoot

Partly to alleviate intense oversubscription in its Astrophysics Research & Analysis (APRA) program, NASA has mandated a significant decrease in the number of its prize (Einstein, Hubble and Sagan) fellowships going forward, and is also seeking to merge management of these fellowships. Details are being worked out, but applicants for 2018 and beyond can expect a single portal and application. The selection panels are likely to meet at the same time, culmi-

nating in a merging panel. There may also be changes to fellowship application rules, and to the location and schedule of the annual symposia. Check the CXC website for updates as plans evolve.

Highlights from Current Fellows

Careening into more cheerful territory, what have current Einstein Fellows been up to recently? Let’s just mention a sample.

Grant Tremblay (2014) led a paper (2016, *Nature*, 534, 218) on *Chandra* and ALMA observations of chaotic accretion of cold, clumpy molecular clouds towards the super-massive black hole in the brightest cluster galaxy at the core of the galaxy cluster Abell 2597. Talk about “draining the swamp”! The work was picked up by the press and will be covered in an upcoming Discovery Channel Documentary called “How the Universe Works”.

Daniel Gruen (2015) received the University Research Association thesis prize this year and was appointed as co-coordinator of the Dark Energy Survey’s Weak Lensing working group.

Lia Corrales (2016) and collaborators used *Chandra* and the SMA to study a mysterious feature within 16 arcseconds of the X-ray binary Cygnus X-3 which varied in phase with it. They showed that Cyg X-3’s “Little Friend” is a Bok globule along the line of sight to Cygnus X-3, reflecting its X-ray emission. The application of Milky Way dynamical models allowed this Little Friend to better constrain the distance to Cygnus X-3.

Right here is where a more subtle writer would deftly weave back in the etymology of “fellowship”, creating a satisfying coda. But alas.

More information on NASA’s Einstein Fellowship Program can be found at <http://cxc.harvard.edu/fellows/>. ■

¹ <http://www.etymonline.com>

Einstein Fellows Symposium 2017

October 12-13

Harvard-Smithsonian Center for Astrophysics
Cambridge, MA