

## LSC fellows program

The LSC has a program of “LSC fellows” resident at the LIGO and GEO Observatory sites, with a clear and important **deliverable: to increase the product of searched volume and time.**

Between runs, during periods of nominal commissioning, LSC Fellows will deliver additional science mode data to the collaboration during periods outside commissioning, nominally weekends and nights, validating calibration and DQ diagnostics to ensure that the data are useful for astrophysics. They will also work with commissioning teams on site to increase the sensitivity of the instruments. During observing runs, LSC Fellows will work with the Observatory Detection Lead and other staff to ensure that the detectors are operating at optimum levels in terms of data quality, robustness and sensitivity.

The LSC will maintain on average 4 Fellows and a program coordinator at each LIGO observatory in the US and one at GEO. During Observation runs, the number of Fellows at LIGO observatories should typically be 5, whereas during commissioning times this number may be typically 2-3. The LSC fellow at GEO will be maintained while GEO data are used for “astrowatch” mode.

To organize the contributions to the program, LSC groups are assigned to “blocks”. Each block will organize itself internally to ensure that every year the appropriate number of fellow-quarters (i.e., integer quanta of 3-month duration) are provided by that block. In order to offer affordable long-term housing at the Observatories to Fellows, each block will also make an annual monetary contribution, which will be decided by the LSC Executive Committee every year on February 15<sup>th</sup>.

The categories of blocks are:

- LIGO Laboratory
- A block with all other US and Canadian groups
- GEO (including Balearic Islands group)
- ACIGA
- AEI-Hannover Data Analysis, AEI-Golm and IndIGO

- A block with all non-US groups not in the above categories.

The blocks and their obligations will be reviewed every August as part of the LSC MOU review cycle, and groups that have joined the LSC in the meantime will be asked to join a block at this time. Obligations for each block will be proportional to the number of authors from that block, determined using the “February” author list of the same year.

Fellows will be encouraged to stay longer than the minimum 1-quarter stay, up to a year. The support of LIGO science observations at the site would not be full time work. While it contributes to the training of the Fellows and has priority over their other activities, it is not necessarily their main thesis or research topic.

There will be a senior scientist appointed by the Spokesperson each year on June 1<sup>st</sup> as “Program Coordinator” at each LIGO detector site, responsible for overseeing and mentoring the activities of fellows at that site. The block that each Program Coordinator belongs to will be considered to have contributed two Fellow Quarters to their obligations to the program.

Each block will appoint a “Block Coordinator” who will manage the logistics for that block. The block coordinator will be responsible for arranging the monetary contributions from block members. The blocks will decide how to distribute obligations internally, and are not constrained in how they do this, as long as the total contribution of the block is correct.

The Program Coordinators will co-chair a 10-member “LSC Fellows Committee”, including all block coordinators and other senior LSC members appointed by the Spokesperson. This committee will develop and monitor the activities of the fellows, provide mentoring and advice, and schedule the stays to make sure there are enough fellows at any given time.

Program Coordinators are responsible for ensuring, prior to arrival at the observatory site, prospective Fellows are i) matched with a mentor, ii) have selected a project in consultation with his or her mentor, and iii) received initial training in tools and tasks typically used and performed by Fellows in the LIGO and GEO control rooms.

The Program Coordinators will produce a report to the LSC Council every year on August 1<sup>st</sup> with the names of Fellows who participated and the activities they

performed in the previous year. The report will include an evaluation of the program with surveys of Fellows, their mentors and if appropriate their academic advisors.