

Graduate Student Research Assistantships at STScI in Massive Star LTSA Project

SPACE TELESCOPE SCIENCE INSTITUTE

Don Figer

STScI

The Space Telescope Science Institute (STScI) invites applications from advanced graduate students to pursue PhD thesis research with Dr. Don Figer. A stipend of approximately \$22,000 per year (depending on qualifications) is provided by STScI. Some support for tuition is also available if required. This position is for the 2005 academic year, with a likely opportunity for an extension up to three years. IDL experience is required.

As part of a 5-year funded NASA Long Term Space Astrophysics project, we seek an energetic graduate student to identify and characterize the most massive stars in the Galaxy. The following is the abstract for this project.

Until the Spitzer Space Telescope, there was no wide area survey that could identify massive stars at all distances in the Galaxy. Indeed, the sample of known O-stars is woefully incomplete, as it has largely been generated using optical observations that suffer from the absorption produced by dust in the disk. We are now at the cusp of a revolution in massive star research that Spitzer will trigger, and we propose to capitalize on that opportunity by performing the first survey of massive stars covering the majority of the Galactic volume. We will find and measure the physical properties of the most massive stars in the Galaxy using HST, Spitzer, Chandra, SOFIA, and ground-based observatories, using a survey technique that probes the majority of the Galaxy. This program addresses fundamental questions whose answers are basic requirements for studying many of the most important topics in Astrophysics: the formation and evolution of the most massive stars, the effects of massive stars on lower mass protostellar/protoplanetary systems, gamma-ray burst (GRB) progenitors, nature of the first stars in the Universe, chemical enrichment of the interstellar medium, Galactic gas dynamics, star formation in starbursts and merging galaxies (particularly in the early Universe). The results of our program will influence the science programs for future NASA projects, i.e. JWST, SOFIA, SIM, TPF-C, and TPC-I.

Applicants must have a Bachelor's degree (or equivalent), must have completed all required graduate course work, and must have been admitted to the PhD program at their home universities. Enquiries about this program may be directed to Dr. Don Figer (410-338-4377, figer@stsci.edu).

Applications should include three copies each of the following material: a signed cover letter, a curriculum vitae, a statement of research interests, and a letter from the official advisor or departmental chairperson giving permission to work at STScI. These should be sent by regular mail to Human Resources, Space Telescope Science Institute, 3700 San Martin Drive, Baltimore MD, 21218. Applicants should also arrange for their academic transcripts and three letters of recommendation to be sent to the same address.

Applications and letters of reference received before December 1, 2005 will receive full consideration. The Space Telescope Science Institute is an affirmative action, equal opportunity employer. Women and members of minority groups are strongly encouraged to apply.

Attention: Christine Rueter - Reg 479

Reference: <http://members.aas.org/JobReg/JobdetailPage.cfm?JID=22139>

Status: Other

Weblink: <http://members.aas.org/JobReg/JobdetailPage.cfm?JID=22139>

Comments:

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