



POSITION ANNOUNCEMENT

PhD STUDENT IN EXTRAGALACTIC ASTRONOMY

Lowell Observatory has an opening for a PhD student with an interest in star formation in galaxies who is ready to work on a PhD dissertation. This position will be dedicated to working on an NSF-supported project to characterize molecular gas and star formation in dwarf irregular galaxies. The position is supervised by Astronomer Deidre Hunter. Hunter will work with the PhD Student to make sure that they make adequate progress and will mentor them to prepare them for post-graduate career opportunities.

RESPONSIBILITIES

The low metallicities found in dwarf irregular galaxies profoundly affect the structure of molecular clouds. In addition, molecular cloud formation is expected to be difficult in these galaxies because of the low gas densities. This is an opportunity to contribute to our understanding of molecular clouds in low metallicity environments like those found in the early universe and to our understanding of star formation in the most numerous galaxy type in the universe. This project will address the questions: 1) What are the galactic environments in which star-forming clouds form at low metallicity? 2) How does dark gas inferred from dust and HI emission relate to molecular cloud cores visible in CO and to star formation? 3) What effect does the different structure of molecular clouds have on the star formation products in these galaxies? 4) Is star formation taking place in the extreme conditions of outer stellar disks?

The candidate will work in a collaborative mode with Hunter, contributing scientifically to the project, and as part of a team of international collaborators. This will be a multi-wavelength, in-depth study of the Local Group galaxy WLM for which the team has ALMA, *Herschel*, and FIR data of CO cores, photo-dissociation regions, and dust emission, as well as data obtained as part of LITTLE THINGS, a study of a sample of nearby dwarf irregular galaxies. In addition, observations have been allocated with *Spitzer* to map the entire stellar disk to unprecedented depth and extent. There is also the potential for proposing for additional data to take the collaboration in new directions.

See <http://www2.lowell.edu/users/dah/littlethings/index.html> for more information about LITTLE THINGS.

QUALIFICATIONS AND EXPECTATIONS

PhD Students are expected to be enrolled in a PhD granting graduate program and in good academic standing, having completed the required institutional coursework and qualifying examinations, or pending near completion of such. Throughout the duration of the PhD Student Program, the student will remain enrolled at the home institution and will graduate with the PhD degree from that institution. *Students must have approval from their home institution before initiation of the application process.*

The candidate must be self-motivated and have the willingness and abilities to take an active role in a large research project, working independently and as part of a team. They must be able to prioritize tasks, set schedules, complete complex projects on time and within deadlines, pay attention to details, and communicate effectively with others.

Periodic consultations and progress reports are expected with Hunter, as well as with their co-advisor and dissertation committee at their home institution.

The PhD Student is expected to work predominately on the Mars Hill campus in Flagstaff, with possible observing at the Lowell DCT telescope and travel to work with team collaborators and attend meetings. A small allocation is available for moving expenses. The PhD Student is also expected to reflect the professional and collegial environment that Lowell Observatory strives to maintain.

Status:	Full Time Temporary
Term:	Initial appointment is for one year with extension possible in one-year increments up to 3 years pending satisfactory progress
Compensation:	Salaried – \$37,000/year
Hours:	Flexible
Benefit Eligible:	Yes
FLSA Classification:	Exempt
Location:	Lowell Observatory's Mars Hill Campus, Flagstaff, AZ

Benefits Overview: In addition to 10 scheduled paid holidays, Lowell Observatory offers a Flexible Paid Time Off policy for all full-time, benefit eligible employees which allows you to determine how much time you need to rest and enjoy yourself outside of work. The cost of premiums for medical, life & long term disability insurances for benefit eligible employees is 100% paid by the company, and includes a contribution to either an H.S.A or HRA account for first dollar medical expenses. After six months if you contribute a minimum of 5% of your income to the retirement plan, the company will match 5%.

An agreement may be made to where you will be paid through your home institution, in that case benefits will be subject to your home institution's policies.

APPLICATION

Complete applications MUST contain the following materials:

(1) Letter of approval from home institution

A letter must be provided from the chair of the department in which the candidate is registered at the home institution stating that the candidate is enrolled full-time in the PhD program, has satisfied the in-house requirements for completion of classes and qualifying examinations, and that the department approves the decision to pursue dissertation research at Lowell Observatory.

(2) Previous research experience (no more than 2 pages)

Please describe previous relevant experience conducting research at the undergraduate or graduate level. Be sure to state your specific contribution to the project, describe the outcome, and list any resulting publications.

(3) Letters of reference

Provide contact information for three people who are willing to write letters of reference for you. These can be professors, researchers, or former employers familiar with your work, either in classes, on a collaborative project, or in a job.

(4) Curriculum Vitae (no more than 2 pages)

Please provide an up to date curriculum vitae, including a description of your background, experience, and any relevant publications.

(5) Transcript of grades

Arrange for your university registrar to mail or fax an official grade transcript. If transcripts are not in English, they must be accompanied by an official translation. These can be faxed or emailed to: 928-268-9876 or humanresources@lowell.edu

(6) Deadline

The deadline for full consideration is December 1st 2019, but the position will remain open until filled. Applications should be sent to humanresources@lowell.edu

Lowell Observatory is an Equal Employment Opportunity/Affirmative Action employer and provides equal employment opportunity to all persons without regard to race, color, religion, sex, national origin, age, genetic information, disability, veteran status, political beliefs, sexual orientation, and marital and family status.

Lowell Observatory provides reasonable accommodations to applicants with disabilities. This nonsmoking campus is at an elevation of 7,000 ft/2100m. If you need a reasonable accommodation for any part of the application and hiring process, please notify the Human Resources office for assistance.

VERSION September 5, 2019, DAH