

POSITION DESCRIPTION

TITLE	Resident Astronomer
GROUP	Astronomy
INCUMBENT	
REPORTS TO	Astronomy Group Manager

POSITION SUMMARY

Conducts astronomical observations, instrument and software development and research. Supports and contributes to CFHT Science Operations. Participates in the design and development of the Maunakea Spectroscopic Explorer (MSE) and of its pathfinder instrument under consideration for development at CFHT. Participates in outreach and community engagement activities.

ESSENTIAL FUNCTIONS

1. Carries out personal and collaborative astronomical research programs, based on data obtained with CFHT and other telescopes. Attends scientific conferences, meetings, and workshops. Submits articles for publication in scientific journals.
2. Acts as project or instrument scientist for the development of instrumentation or software projects, including for MSE or its CFHT pathfinder instrument. Activities include the definition of scientific specifications, their flowdown in technical requirements, performance estimate and/or development of the scientific data reduction pipeline. Performs scientific acceptance tests and writes documentation.
3. Contributes to the scientific operations of the telescope. Plans the nighttime observations, follows up and reports on progress. Proposes improvements to operations to facilitate the scientific use of the telescope. Participates in science and technical reviews. Assists with CFHT Large Program implementation and analysis.
4. Represents CFHT through attendance and participation at the annual meetings of the Canadian Astronomical Society and of the American Astronomical Society.
5. Attends Hawaiian culture training and develops a culture of appreciation and understanding with the Hawaiian community. Participates in outreach program activities to further knowledge and understanding of astronomy and the universe throughout the member communities and the local community in Hawai'i.

OTHER DUTIES AND RESPONSIBILITIES

1. Works effectively with others by sharing ideas in a collaborative, positive manner; listening to and objectively considering ideas and suggestions from others; keeping commitments; keeping others informed of work progress and issues; addressing problems and issues constructively to find mutually acceptable and practical solutions; and respecting the diversity of the CFHT workforce.
2. Commits to comply with all administrative rules of the Corporation. Maintains commitment to a high standard of safety, complies with all safety laws and CFHT safety policies/rules, and reports actual and potential safety violations to appropriate supervisory or management personnel.
3. Performs other related duties as assigned.

MINIMUM QUALIFICATIONS AND REQUIREMENTS

1. PhD or equivalent degree in astronomy, physics, or astrophysics.
2. Three years' experience with the scientific aspects of telescope and instrument development or with observation programs on large telescopes. Experience with observation and reduction techniques in multi-object spectroscopy, and / or in time domain astrophysics.
3. Expertise developing software in python.
4. Ability and willingness to work irregular hours and at night as required. Ability and willingness to report for emergency work on short notice, at night, on weekends and on holidays.
5. Ability, certified by a physician, to perform duties effectively and safely at the site of the CFH telescope, located at an altitude of 4200 meters in a low temperature and low humidity environment.

DESIRABLE QUALIFICATIONS

1. Good understanding and knowledge of the scientific interests of the Canadian astronomical community. Ongoing scientific collaborations with Canadian astronomers is a plus.

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed above are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.