

LOWELL OBSERVATORY

1400 WEST MARS HILL ROAD, FLAGSTAFF, AZ 86001
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POSITION ANNOUNCEMENT

Head of Instrumentation

Lowell Observatory invites applications for the position of Head of Instrumentation (HOI), a leadership position in Lowell's Technology Group. The HOI reports to Lowell's Deputy Director for Technology (DDT) and will supervise the instrumentation staff that builds and supports the instruments at Lowell's Discovery Channel Telescope (DCT), the smaller facilities at Anderson Mesa, and the Mars Hill Flagstaff campus in collaboration with the facilities Operations Manager and the DDT. The Head of Instrumentation will be responsible for building the Lowell Instrumentation Group into a world class group of motivated, forward thinking, professional instrument scientists and engineers. The Observatory is currently exploring designs for the next generation of DCT instrumentation; this position is ideal for someone who is also passionate about shepherding new instrumentation projects from start (i.e., scientific requirements definition) to finish (i.e. commissioning, operations, and ongoing maintenance).

RESPONSIBILITIES

- Provides technical leadership and operational management for the instrument group, including (at present six) Instrument Scientists, Electronics/Electrical Engineers, and Software Engineers who are collectively responsible for the optomechanical, electrical, and software elements of current and future Lowell Observatory instrumentation
- Manages budgets and personnel actions (recruiting, performance reviews, career growth) for the group
- Leads instrument-related projects and some telescope activities for the DCT, Anderson Mesa facilities, and the Public Program/Mars Hill. Also, guides software projects for telescopes and instruments, and occasional contract work (e.g., NASA)
- Provides elements of instrument design (e.g., optical, mechanical, detector, cooling, vacuum, software) and the systems engineering and management role for large projects
- Defines instrument requirements to address the science goals of astronomical instrument proposals
- Participates in instrument maintenance activities when needed
- Supports the Deputy Director for Technology (DDT) in working with the Lowell faculty

- and Public Program groups, and in defining project priorities for the Observatory
- Develops, plans, and leads instrumentation activities for annual shutdown engineering
 - Ensures that instrumentation and software are ready for observing every night at the various telescope facilities (shared with the Operations Manager)
 - Develops and executes preventative maintenance plans and procedures for instruments
 - Identifies, assigns, and tracks all projects required to correct or prevent system faults
 - Works with the telescope user community and the technology group to assess instrumentation needs, including performance optimization and troubleshooting
 - Assists the Deputy Director for Development (DDD) to obtain funds for projects

Qualified candidate will not necessarily have prior experience with every element of this position, but should be willing to grow and challenge themselves in areas beyond their current expertise.

Qualifications

Qualifications for this position include a BS degree (advanced degree preferred) in astronomy, physics, engineering, or a closely related field, plus significant experience in building, maintaining, and/or operating research-grade astronomical telescopes, instrumentation, electronics, and software. Experience in management of technical personnel is also required. Extensive knowledge of and experience with modern software architecture, practices, and programming is desirable. Experience in building, maintaining, and/or operating instrumentation specifically for 4m-class (or greater) telescopes is a plus.

The HOI leads the instrument group in instrument development and operations, and also facilitates communication of priorities and goals between the instrument group and other Lowell Observatory groups. The position therefore requires someone skilled in communication, project management, personal interactions, and an ability to define, balance, and advance multiple tasks based on priorities. Therefore, a demonstrated history in technical project and personnel management and administration is also necessary for this position.

Lowell Observatory operates telescopes at three sites: its expanding Mars Hill campus (both research and public viewing telescopes), Anderson Mesa (1.1-meter, 0.9-meter, 0.6-meter telescopes, and the Navy Precision Optical Interferometer - NPOI), and Happy Jack (the 4.3-meter DCT). Lowell also operates a well-equipped instrument shop to support projects from design and development of modern instrumentation to restoration and preservation of historic observing facilities such as Percival Lowell's 24" Alvan Clark refractor and the Pluto discovery telescope. The instrument shop is being redesigned and will be fully rebuilt in the coming years; the HOI will play a major role in developing that facility.

Status: Full Time
FLSA Classification: Exempt
Compensation Type: Salary
Benefit Eligible: Yes
Location: Flagstaff, Lowell Observatory's Mars Hill Campus

To Apply:

Please send the following documents to humanresources@lowell.edu

- Application (<http://lowell.edu/about/employment>)
- Resume
- Letter of interest addressing your qualifications
- Phone numbers and e-mail addresses of three references

Applications received by January 15th 2020 will receive full consideration.

Inquiries may be sent to Kyler Kuehn, Deputy Director for Technology (kkuehn@lowell.edu). Dr. Kuehn will be attending the January AAS Meeting in Honolulu; to arrange an informal discussion at the Meeting regarding this position, contact Dr. Kuehn via email.

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.

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/drug-free campus is at an elevation of 7,000 ft/2100m, and the DCT is 40 miles south of Flagstaff at an elevation of 7,800 ft/2370m. If you need a reasonable accommodation for any part of the application and hiring process, please notify the Human Resources office for assistance.

All employment with the Observatory is on an "at will" basis. At-will employment means that the relationship may be terminated at any time by either the employee or the Observatory for any reason not expressly prohibited by law. Any representations to the contrary are invalid and should not be relied upon by any prospective or existing employee.

VERSION October 25th, 2019/HR