



# Consultation BDD

## CFHT

### Type

AA-ANO3

### Coordination

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### Description

CFHT is a 3.6 m optical and near-infrared telescope located atop Maunakea in Hawai'i, on the land of the Kʻnaka Maoli people. CFHT acknowledges the profound historical, cultural, and spiritual significance of Maunakea. CFHT is jointly managed by NRC (Canada), CNRS (France), and the University of Hawai'i. CFHT is equipped with 5 instruments: a wide-field optical camera (MegaCam), a wide-field infrared camera (WIRCam), a high-resolution optical spectropolarimeter (ESPaDOnS), a Fourier transform optical spectro-imager (SITELE), and a high-precision infrared spectropolarimeter and velocimeter (SPIRou). CFHT's scientific staff consists of Resident Astronomers and Remote Observers. They carry out the scientific operations, encompassing user support, review of the proposals, review of the Phase 2 material, preparation of the queues, night observations, data quality control, data reduction and instrument performance monitoring. CNRS also provides Resident Engineers, in lieu of Resident Astronomers, who contribute to the daily technical operations of the Observatory (project developments, maintenance, technical operations, etc.). In addition to CFHT Resident Astronomers and/or Engineers, astronomers in the User Community provide further support to the CFHT mission by performing the following functional tasks: - Support operations: Quality Control / Data Validation, Data Reduction (detrending), pipeline development and validation, Instrument performance monitoring (e.g. zeropoints, radial velocity accuracy), Documentation - Provide User Support at all stages of the observation sequence: Proposal Preparation (Phase 1), Observation Preparation (Phase 2), Data Reduction - Proposal Reviews and Technical Evaluations - Develop tools to improve and streamline operational service at CFHT. For example, Exposure Time Calculators, data grading tools, queue optimization tools, data reduction pipelines, data real-time analyses (e.g. detection of transients in MegaCam images), etc. - Support the development of new instruments and/or new observation capabilities. For example, CFHT is preparing the development, installation, commissioning and science verification of Wenaokeao, a co-mount of the ESPaDOnS and SPIRou injection/calibration modules, and is preparing its integration into the Astronomical Event Observatory Network (AEON). - Support for Large Programs and Surveys: semester and run strategic planning, observing statistics, queue management, Quality Control, post-processing analysis products, instrument monitoring, etc.