

Observational Projects with the Moses Holden Telescope

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The Moses Holden Telescope located at UCLan's Alston Observatory is one of the largest (70cm diameter mirror) and most powerful in the UK. It can simultaneously image a region of 0.66 x 0.66 degrees, and is fitted with a set of filters capable of observing light from the UV to the near-infrared.

It is a perfect tool for those interested in undertaking a hands-on research project in astrophysics. Several successful postgraduate research projects have already utilised the MHT to conduct an ongoing survey of the stellar variability (including searching for transiting exoplanets) of a sample of 80,000+ stars, as well as a study of the structure of the local group spiral galaxy Messier 33.

Some other possible projects are outlined below, but this list is not exhaustive, if you have an area of astrophysical research that interests you we can work to define a research question for you to examine.

Possible research projects utilising the MHT:

- 1) Surveys of stellar variability (including exoplanet transits).
- 2) Characterising known exoplanets based on their transits.
- 3) Studies of solar system objects such as asteroids, near Earth objects or trans-Neptunian bodies.
- 4) Measurement of the proper motions of nearby stars.
- 5) Determination of the distances to objects using variable stars (e.g. Cepheids/RR Lyrae).
- 6) Studies of extragalactic supernovae.

For more information on this project please contact Dr. Norris (MNorris2@uclan.ac.uk).

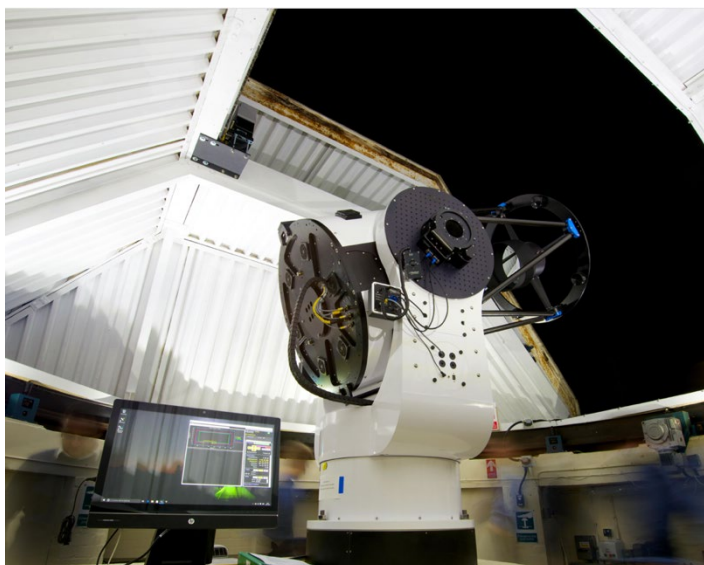


Figure: The Moses Holden Telescope, a 0.7m Planewave CDK700 telescope.