

The Anglo-Australian Telescope

The **Anglo-Australian Telescope (AAT)** is a 3.9-m equatorially mounted telescope operated by the Australian National University, on behalf of a consortium of Australian universities. It provides world-class observing facilities for Australian optical astronomers. Non-Australian users can also access the AAT through pay-for-access arrangements.

AAT Science

The AAT is the largest optical telescope in Australia, with an excellent instrumentation suite that has kept it globally competitive. It remains extremely productive, with recent projects including:

- **OzDES** – A survey to measure the redshifts of tens of thousands of galaxies and obtain spectra of supernovae and other transients. The galaxy redshifts are used to make the most detailed measurement of the Universe's expansion history, leading to a better understanding of the physics behind the acceleration of the Universe.
- **GAMA** – A survey of galaxies and galaxy clusters to investigate the formation and evolution of galaxies at low redshifts.
- **GALAH** – An ongoing project to understand the chemical evolution of our own Galaxy by surveying a million stars.
- **DEVILS** – An ongoing project to investigate the formation and evolution of galaxies at intermediate redshifts.



Credits: (Middle) Ángel R. López-Sánchez, (Top) James Gilbert.

Enquiries regarding access to the AAT can be made to the Astronomy Australia Limited (AAL) office:
info@astronomyaustralia.org.au



Astronomy
Australia
Ltd.

For more information on the AAT
visit the AAL or ANU websites:

astronomyaustralia.org.au
aat.anu.edu.au



AAT Snapshot

Telescope: 3.9 m, Cassegrain reflector, equatorial mount.

Location: Siding Spring Observatory, New South Wales, Australia, 31°16'24"S 149°03'52"E, altitude: 1,165 m.

Instruments:

- **AAOmega** – A fibre-fed optical spectrograph, fed by either:
 - the 2 Degree Field (2dF) robotic fibre positioner covering a 2 degree diameter field at prime focus with 392 fibres, or
 - KOALA, a wide-field, high efficiency, integral-field unit with 1000 hexagonal lenslets in either 15.3 x 28.3 arcsec (0.7" sampling) or 27.4 x 50.6 arcsec (1.25" sampling) array.
- **HERMES** – A fibre-fed high-resolution spectrograph, fed by the 2 Degree Field (2dF) robotic fibre positioner covering a 2 degree diameter field at prime focus with 392 fibres.
- **HECTOR** – From 2022, a new multi integral-field-unit spectrograph aimed at conducting a low-redshift survey of up to 30,000 galaxies, with 90% imaged out to 2 effective radii.
- **Veloce** – A stabilised, fixed-format, high-resolution ($R \sim 75,000$) echelle spectrograph, covering 580 – 930 nm, with an extension to bluer wavelengths under construction.
- We accept visitor instruments at the Cassegrain focus, with either the f/8 or the f/15 top ends.

Further information on the telescope and instruments can be found at: aat.anu.edu.au/science