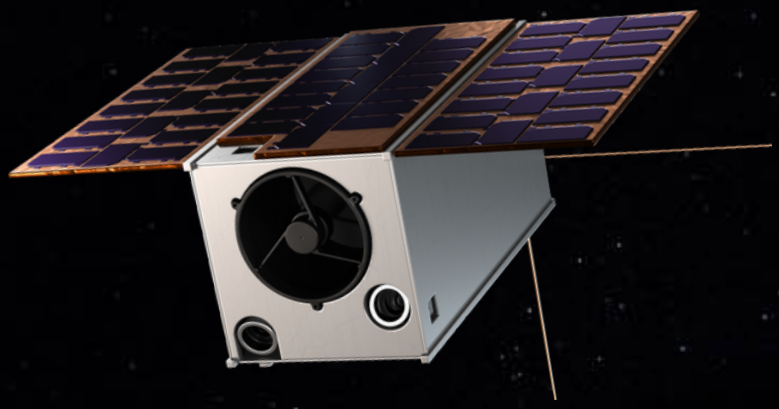
MAUVE

MEASURING THE STELLAR ACTIVITY OF NEARBY STARS



BLUE SKIES SPACE

Accelerating Discovery

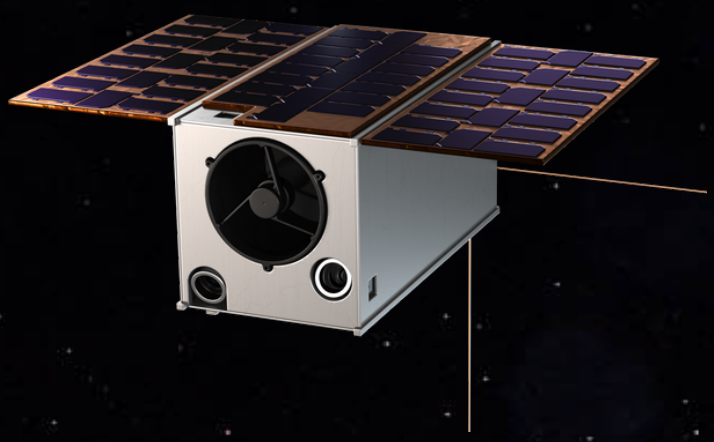
Blue Skies Space offers a new model of delivering data from space to the global scientific community. Through a fleet of rapidly built low-Earth orbit spacecraft focusing on specific scientific questions, our vision is to provide the global research community with the best possible data to advance research in the most exciting research domains.

Our model is enabled by leveraging flight-proven industry products and repurposing them for scientific applications, turning science mission concepts into reality on accelerated timescales.

About Mauve

Mauve is a 5-year space science mission to study stellar objects in our galaxy. The mission will deliver Ultraviolet (UV) and visible spectroscopy of stars across a wide wavelength range. Science operations will commence from a low-Earth orbit in 2025 and the scientific data will be made available through structured multi-year surveys or dedicated hourly use of the telescope.

Primary Mirror	13 cm
Spectral Range	200 - 700 nm
Spectral Resolution	10 nm (max R=65)
Field of View (Declination)	-46.4 to 31.8 deg
Satellite Weight	25 kg
Pointing Solution	High-performance Star Tracker



Delivery Partners

C3S

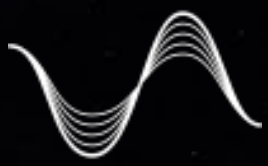
ISISPACE

A Unique Science Opportunity

Mauve can point for long stares at hundreds of stars in our galaxy and its unique observing capabilities will empower scientists to break new ground in stellar research. These science cases include:

Characterisation of Stellar Flares

Mauve's design to observe stars for long durations will facilitate the comprehensive study of flares including their frequency, energy distribution, and physical properties like effective temperatures.

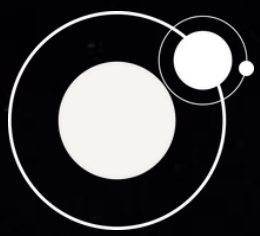


Stellar Variability

Through a multi-year survey program, Mauve will provide monitoring of stars, unlocking statistical datasets on the variability of both variable stars and eruptive variable stars, including classical and weak T Tauri stars, as well as active flaring stars.

Disk-bearing Stars and Young Stellar Objects

Population studies of young stars will enable the identification of strong and broad emission lines, such as the Hydrogen Balmer series, and will enable the identification of disk-bearing candidate stars.



Star-Planet Connection

Improving our knowledge of the physical properties of exoplanets requires studies of chemical abundances and magnetic activity of the host star. Through time-domain astronomy, Mauve will monitor the magnetic activity of exoplanet hosts.

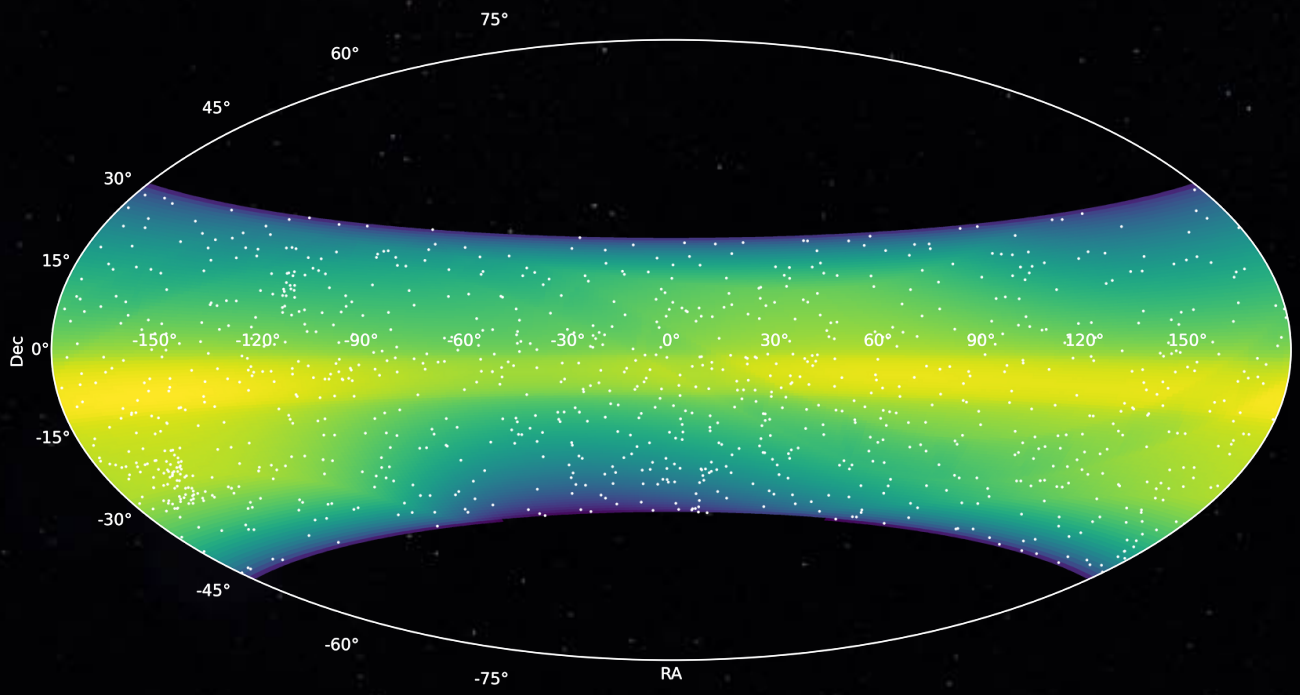
Spectral Characterisation

Mauve's ability to provide flux-calibrated spectra for a variety of stars will help constrain stellar physical properties such as effective temperature, surface gravity, and radius, enabling the spectral characterisation of stars awaiting follow-up observations.

A Global Science Collaboration

Mauve's structured survey programme will bring together an international collaboration of scientists to study hundreds of stars, leading to high-impact science publications. Thousands of observational hours will be dedicated to each year of the survey, with many stars continuously available within Mauve's wide field of regard, enabling long baseline observations and unlocking a significant time domain astronomy opportunity.

Mauve's survey science programme will be decided by its members and is open to any scientist from around the world. Members will utilise the Blue Skies Space innovative collaboration portal, Stardrive, providing a comprehensive suite of data management, performance simulation and mission planning tools.



Dedicated hourly telescope time is also available through a fast and simple access process.

Contact Us

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