

Blue Skies Space – a new model for the future of space-based research data

Blue Skies Space has developed an innovative funding and delivery model for science satellites. This new model leverages recent advancements in space technology and the rapidly evolving global scientific landscape, enabling us to drastically reduce satellite development time and costs. Our vision is to accelerate and expand the availability of new datasets to researchers worldwide, complementing the facilities delivered by space agencies.

Our first satellite, Mauve, is designed to monitor the flaring activity of stars, including those that are hosts to potentially habitable exoplanets. Mauve's data will help scientists understand the impact of powerful stellar flares on their atmospheres. The satellite, launching in October 2025, is equipped with a 13 cm telescope and a UV spectrophotometric instrument with a wavelength coverage from 200 to 700 nm.

Twinkle, our flagship mission, features an infrared spectrometer to study extrasolar objects and solar system bodies with a 45 cm telescope in the visible and infrared wavelengths (0.5-4.5 μ m). Twinkle will deliver spectroscopy of thousands of targets, enabling scientists to produce transformative research on exoplanet atmospheres, solar system objects, stars and stellar discs.

In our presentation, we will deliver updates on our satellites and discuss how this new approach is set to increase global access to valuable scientific data. To learn more, please visit bssl.space.

Authors:

- Jonathan Tennyson^{1,3}
- Marcell Tessenyi¹
- Giovanna Tinetti^{1,3}
- Philip Windred¹
- Richard Archer¹
- Benjamin Wilcock¹
- Ian Stotesbury¹
- Rachel Grant¹
- Lawrence Bradley¹
- Fatemeh Zahra Majidi²
- Yoga Barrathwaj Raman Mohan¹
- Parul Janagal¹
- Arianna Saba¹
- Sarah Harvey¹
- Tailong Zhang¹

Affiliations:

1. Blue Skies Space Ltd. - London, United Kingdom
2. Blue Skies Space Italia S.r.l. - Milan, Italy
3. University College London - London, United Kingdom