

Twinkle - a mission to unravel the story of planets in our galaxy

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Twinkle is a small, dedicated satellite designed to measure the atmospheric composition of exoplanets. Twinkle is a cost-effective spacecraft being built on a short timescale and is planned for a launch by 2022. The satellite uses an existing platform designed by Surrey Satellite Technology Ltd, and instrumentation built by a consortium of UK institutes. Access to Twinkle is made available to universities, research institutes and national consortia worldwide. The success of this model will lead to a series of space science missions, delivered with a self-sustainable approach. We provide here an update on the funding model and the technical activities in progress for this new class of science mission.

Twinkle can observe the chemical composition and weather of at least 100 exoplanets in the Milky Way, including super-Earths (rocky planets 1-10 times the mass of Earth), Neptunes, sub-Neptunes and gas giants like Jupiter. It will also be capable of follow-up photometric observations of 1000+ exoplanets in the visible and infrared, as well as observations of Solar system objects, bright stars and disks. More information on Twinkle can be found on our website:

www.twinkle-spacemission.co.uk

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