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The search for exocomets in photometry using CHEOPS.

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Abstract

The interest in minor bodies has grown significantly in the past decade, thanks to the growth of the exoplanetary field and their relevance in planetary system formation and architecture. Particularly, the presence of exocomets has been detected in spectroscopy as variable absorption events in metallic lines (mainly Ca II K and Na D) in several A-type stars. While spectroscopy allows the detection of the gas component of cometary tails, it wasn't until the appearance of intensive exoplanet search photometric missions that the dust counterpart of these events was found, first with Kepler and then with TESS.

Still, there is only one star where exocomets have been detected simultaneously using the two different techniques: Beta-Pic. In an attempt to enlarge this number, we proposed observations of the bright exocomet-host star, 5 Vulpeculae, with CHEOPS for a time span of almost 2 full days. We present here the negative results of the observations, and what have we learned from the experiment.

My poster is available at <https://doi.org/10.5281/zenodo.7048264>