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3.5+ years of characterising exoplanetary systems with CHEOPS

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Characterizing Exoplanets Satellite (CHEOPS) is the first ESA space mission dedicated to the study of known exoplanets. The satellite, carrying a 30cm photometric telescope, carried out its 3.5-year nominal mission between December 2019 and September 2023 is currently in its first extended mission. CHEOPS is performing ultra-high precision photometry of exoplanetary systems with a sensitivity allowing to characterise small planets transiting Solar-type stars. CHEOPS is improving density measurements of low-mass planets, detecting and confirming small planets orbiting bright host stars and resolving the architectures of key exoplanet systems, including PLATO-like systems with long-period small planets. CHEOPS also probes planetary atmospheres through measurements of secondary eclipses and phase-curve observations. I will report on highlights of over 4 years worth of CHEOPS science and discuss how the mission is orienting itself in its first extension lasting until December 2026. I will discuss some lessons learnt from CHEOPS that seem relevant for PLATO and will further emphasise the synergies between the two missions, and how these will be driving exoplanet science throughout the 2020ies.

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