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Methodology to detect exoplanet transits in the project TAOS-2

The TAOS-2 project (Transneptunian Automated Occultation Survey) consists of 3 robotic telescopes with a primary mirror of 1.3 m in diameter each one, each telescope will have installed a helium-cooled camera and an 80 Mpx detector controlled by 10 FPGAs. This will allow images to be taken at 20 Hz of approximately 10,000 stars simultaneously. The objective is to detect stellar occultations by small objects (~ 1 km in diameter) in Kuiper's belt (~ 43 UA). In addition, with a large amount of data that will be collected by the TAOS-2 project, it will be possible to carry out other studies outside the main objective of the project, one of them is to design a method to detect possible transits of exoplanets.