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Preliminary design of the MAORY Calibration and Test Unit

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MAORY (Multi-conjugate Adaptive Optics RelaY) is one of the first light instruments for the Extremely Large Telescope (ELT). It will be firstly used by MICADO (Multi-AO Imaging CamerA for Deep Observations), a near-infrared high-angular resolution imager, to compensate aberrations and provide high-Strehl images within a (53â€\(\mathbb{Z}\)x53â\(\mathbb{Z}\)) Field of View (FoV). The complexity of MAORY requires calibration functionalities for both the AIV (Assembly-Integration-Verification) and the operational phase. The function of the Calibration and Test Unit (CTU) is keeping the high efficiency of the adaptive correction provided by MAORY during the operational phase, through proper calibration sources, acting as both Natural Guide Stars (NGS) and Laser Guide Stars (LGS) sources. A recent review of the MAORY optical design has involved a deep change in both the concept and the position of the CTU, with respect to the original concept: an overview of the old design, the status of the new design and the main challenges to face in the future are presented.

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