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# The low cost adaptive optics system CIAO is now compatible with extended sources

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## Abstract

Imagine decided to design a simple and affordable adaptive optics system dedicated to astronomers who need to improve the resolution of the images done by their one meter class telescope. CIAO (for Compact Innovative Adaptive Optics) is based on a piezo-electric deformable mirror and a fast Shack-Hartmann wavefront sensor. It is fixed on the telescope through the eyepiece interface and creates a new focal plane on which a scientific camera can be installed.

We'll describe the technical elements of CIAO and the optical architecture. We will particularly describe in detail the new capability of CIAO to do adaptive optics on extended objects. Coupled to the "lucky imaging technique" we'll see that CIAO is particularly adapted to planet imaging and that it increases the number of possible nights when high resolution images can be obtained.

CIAO is the ideal platform for astronomers looking for a robust and standard Adaptive Optics system to do high resolution imaging or couple the light from the telescope into a single mode fiber with high efficiency.

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