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The MICADO Atmospheric Dispersion Corrector

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Atmospheric dispersion, the wavelength dependent differential refraction of light passing through the atmosphere, will cause severe degradation of image quality and contrast on the upcoming Extremely Large Telescope (ELT). Although the effect is the most severe at short wavelengths and low observing altitudes, the high resolution of the ELT causes atmospheric dispersion to be a problem well into the near-infrared. To counteract this adverse effect, MICADO will employ an Atmospheric Dispersion Corrector (ADC), which aims to reduce the dispersion to below 2.5 milli arcseconds. In this presentation, I will provide an overview of this component, including the design and the present status. I will also discuss a new method that will be used to validate the performance at the milli arcsecond level as soon as on-sky observations start at the end of 2027.

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