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The mid-infrared channel of the EChO mission

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Abstract

The Exoplanet Characterisation Observatory, EChO, is a dedicated space mission to investigate the physics and chemistry of Exoplanet atmospheres. Using the differential spectroscopy by transit method, it will provide simultaneously a complete spectrum in a wide wavelength range between 0.4µm and 16µm of the atmosphere of exoplanets. It has been selected by ESA in its M3 Cosmic Vision program for a phase A study. The payload is subdivided into 6 channels. The mid-infrared channel covers the spectral range between 5µm and 11µm. In order to optimize the instrument response and the science objectives, the bandpass is split in two using an internal dichroic. We present the opto-mechanical concept of the MWIR channel and the on-going detector development that drives the thermal and mechanical designs of the channel. The estimated end-to-end performance will also be presented.

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Line 1	Line 1	Line 1
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Line 5	Line 5	Line 5
Line 6	Line 6	Line 6
Line 7	Line 7	Line 7
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$$a^2 + b^2 = c^2 \quad (1)$$

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Acknowledgements

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