

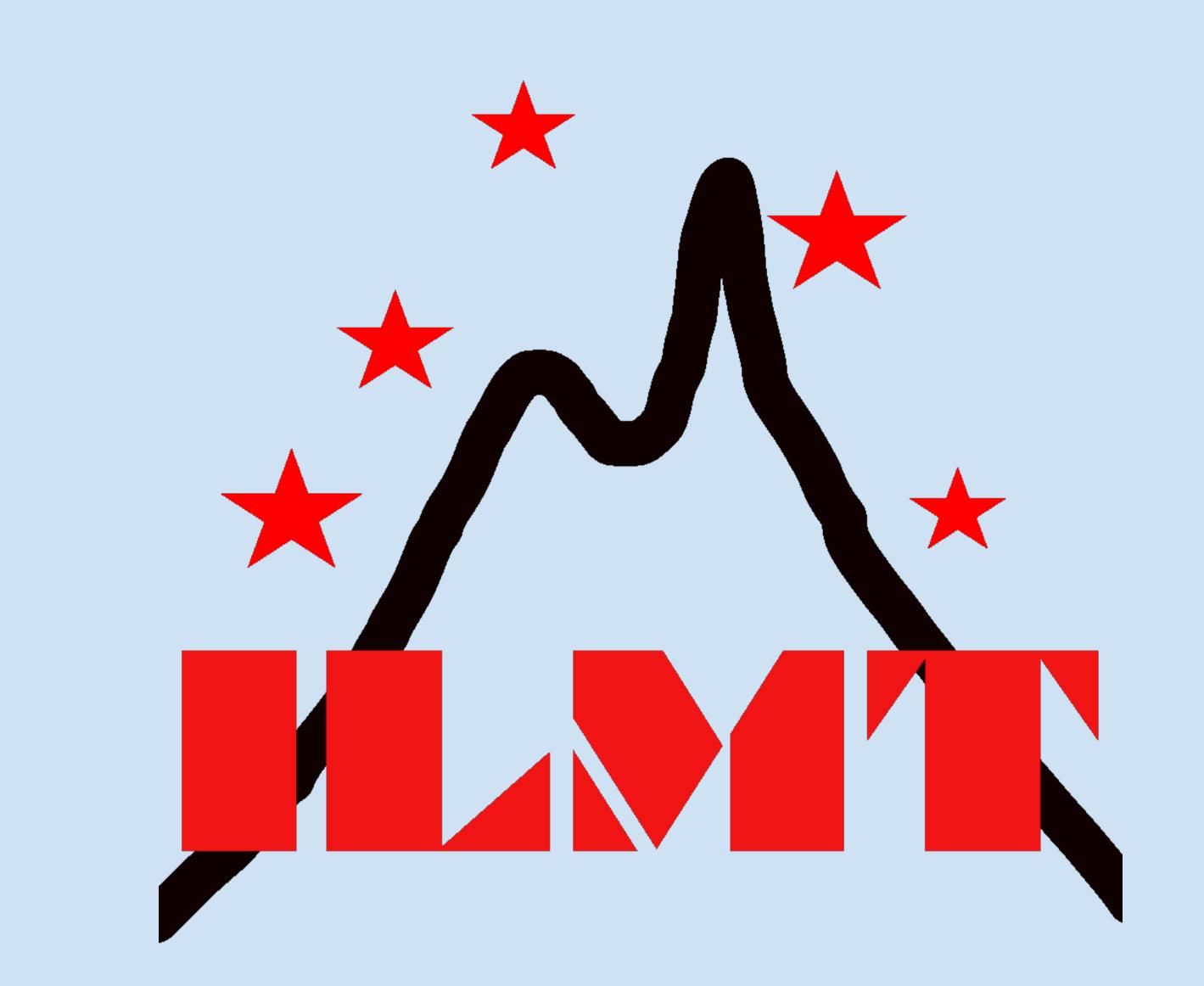


Accessibility of the ILMT survey data

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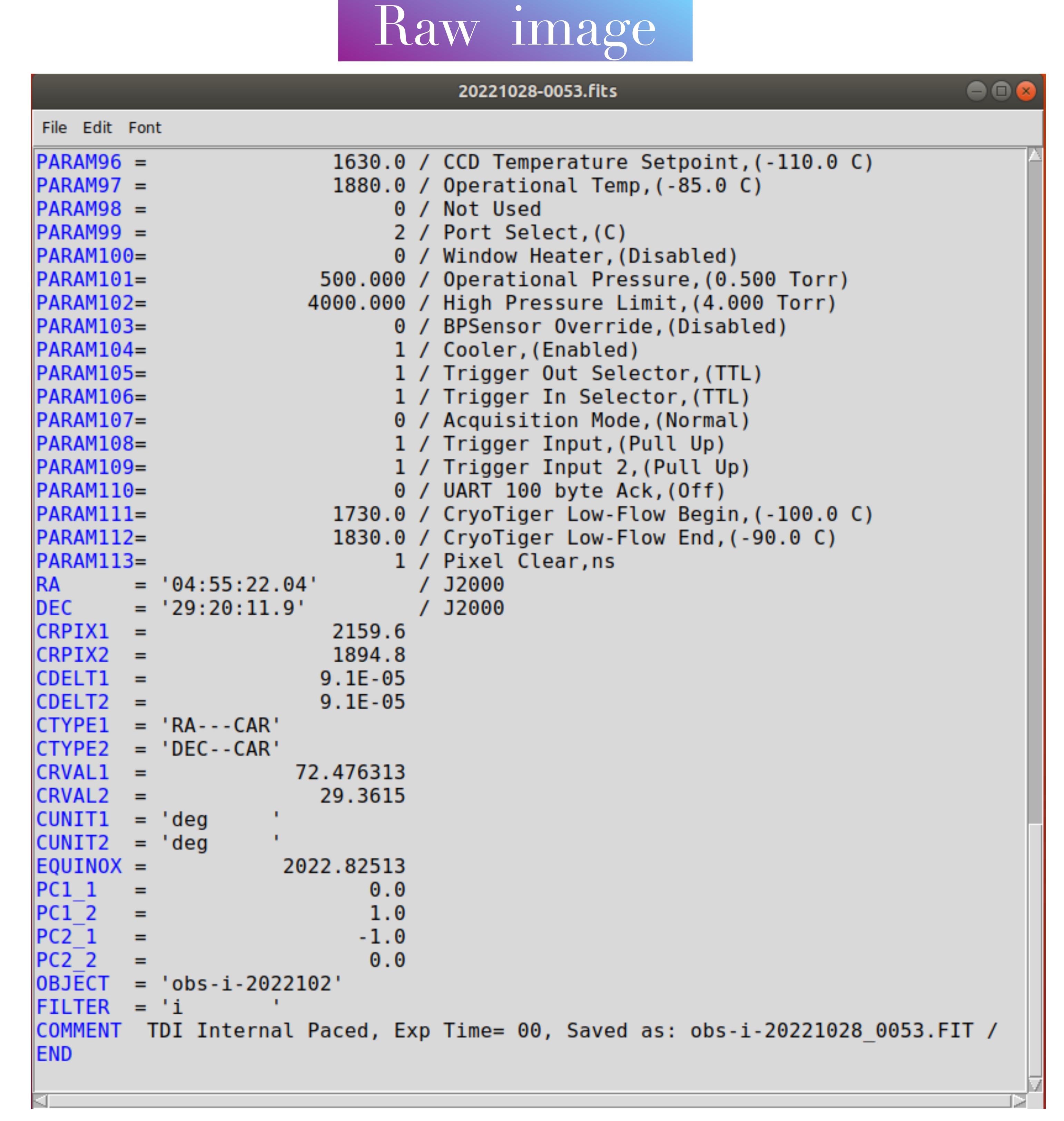


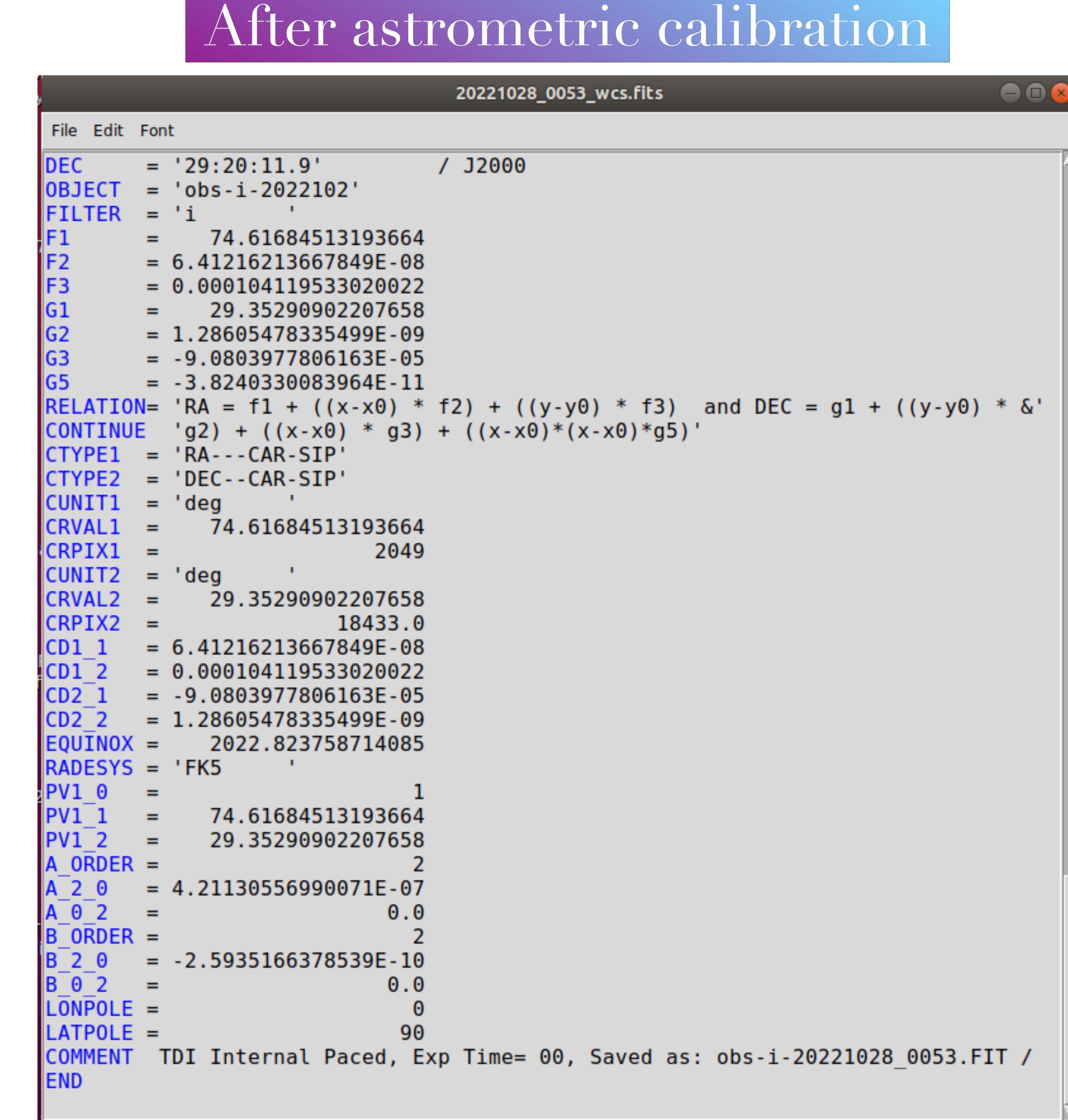
<u>Abstract:</u> The 4m International Liquid Mirror Telescope (ILMT) continuously scans the 22' wide strip of the zenithal sky and records the images in three broadband filters (g', r' and i') using a 4Kx4K CCD camera. In about 10-12 hours of observations during a single night, ~15 GB of data volume is generated. The raw images resulting from the observations in Oct-Nov 2022 have been pre-processed and astrometrically calibrated. In order to exploit the scientific capabilities of the ILMT survey data by the larger scientific community, we are disseminating the raw data (along with dark and flat fields) and the astrometrically calibrated data. These data sets can be downloaded by the users to conduct the scientific projects of their interest. In future, the data will be processed in near real-time and will be available via the ARIES data archive portal.

Introduction to the ILMT data

- The ILMT performs zenith sky observations of a 22' wide strip of the sky using a 4K x 4K CCD camera in Time Domain Integration (TDI) mode.
- Each night either of the three sloan g, r or i filters are used for the observations.
- The exposure time in each image is set for 17 minutes.
- The raw image has dimensions of 4096 × 40960 pixels.
- While pre-processing the images, the first 4096 pixels are removed.
- The astrometrically calibrated images are dark corrected and flat fielded.
- The astrometric calibration is performed on the preprocessed images. The calibrated image has a size of 604 MB.
- In about 10-12 hours of observations during a single night, nearly 15 GB of data volume is generated.
- The raw images along with 1D dark frames and 1D flat fields and the pre-processed astrometrically calibrated data will be available for download via the ARIES cloud service.
- In future, the near real time calibrated data will be made available to the community via the ARIES data portal.

Header information of the ILMT images





Directory structure of ILMT data

