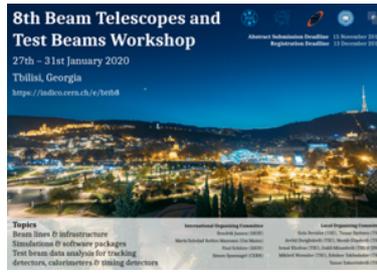


## 8th Beam Telescopes and Test Beams Workshop



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# Reference telescope for detector tests at the 25 MeV proton cyclotron CYRCé at Strasbourg

Wednesday 29 January 2020 10:50 (20 minutes)

For the experimental setup at the 25MeV proton test beam facility in Strasbourg a reference telescope has been assembled. Four CMS Pixel-Phase-1 modules have been used to build two reference planes in front and behind the detector under test (DUT), each plane consisting of two modules mounted side by side with a small overlap of about one millimetre. The pixel modules are read out by an intermediate board identical to the CMS beam telescope CHROMIE . The purpose of this telescope is to define tracks of individual protons and to determine the impact point with a spatial resolution in the order of the granularity of the DUT, approximately 150 micron, mainly limited by multiple scattering. We will describe the geometrical setup of the pixel modules, the electronic read-out and Data Acquisition Chain (DAQ). First results with beam are presented and the challenge of running the LHC electronics of the telescope synchronized with the beam frequency of 42.5 MHz will be discussed.

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