8th Beam Telescopes and Test Beams Workshop



Contribution ID: 45 Type: **not specified**

MALTA CMOS sensor telescope: experience from the operation and recent measurements

Thursday, 30 January 2020 17:20 (20 minutes)

MALTA is a novel monolithic active pixel CMOS sensor chip designed in TowerJazz 180nm technology. The chip contains 512x512 square pixels with a pitch size of 36.4 μ m, and has a thickness down to 100 μ m. A MALTA telescope has been developed that contains 3-6 planes. In this contribution we will review the performance of the telescope evaluated during recent testbeam campaigns at DESY and ELSA. The results show that the MALTA-based telescope is capable to characterise new devices with good spatial resolution at high event rates. The measurements of new sensor types with improved radiation-hardness will be also outlined.

Primary authors: DYNDAL, Mateusz (CERN); SOLANS SANCHEZ, Carlos (CERN); DAO, Valerio (CERN); PERNEGGER, Heinz (CERN); SHARMA, Abhishek (University of Oxford (GB)); ASENSI TORTAJADA, Ignacio (Univ. of Valencia and CSIC (ES)); FREEMAN, Patrick Moriishi (University of Birmingham (GB)); FLORES SANZ DE ACEDO, Leyre (University of Glasgow (GB)); CARDELLA, Roberto (University of Oslo (NO))

Presenter: DYNDAL, Mateusz (CERN)

Session Classification: Beam Telescopes