



Contribution ID: 46

Type: **not specified**

COMBAT: Development of a Track Reconstruction System

In High Energy Physics (HEP), telescopes are systems built for the test of devices under development in a test-beam environment, where well controlled sources of high momentum particles can be used in conditions similar to those observed in actual experiments. They are usually composed of several planes of detectors providing 2-dimensional position, from which 3- dimensional trajectories can be reconstructed. The COMBAT (Compact Brazilian Telescope) was projected as a lightweight, low-material telescope, composed of 8 pixel silicon planes readout with the Timepix chip. The results presented describe the comissioning and data aquisition of COMBAT with measurements of atmospheric muons and a 180 GeV/c beam of protons and pions in the SPS/CERN testbeam area.

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