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## **An upgrade of the camera focal plane of a Schwarzschild –Couder Telescope prototype (pSCT) for the Cherenkov Telescope Array (CTA)**

The Cherenkov Telescope Array (CTA) will be the next generation of ground-based observatory of very high energy gamma ray sources.

The Italian Institute of Nuclear Physics (INFN) is involved in the R&D effort for the development of a possible solution for one of the Cherenkov photon camera designs, working on replacing the Hamamatsu MPPC S12642- 0404PA-50 with more UV sensitive ones from Fondazione Bruno Kessler (FBK). INFN is currently developing the preamplifiers and the carrier boards for the SiPM chips that interface with the mechanics of the camera.

To test the feasibility and the performance of SiPM cameras, a focal plane camera prototype module, upgraded with High Density NUV –SiPMs, produced by FBK, with a micro cell of  $30\ \mu\text{m} \times 30\ \mu\text{m}$  and  $6\ \text{mm} \times 6\ \text{mm}$  area, is being assembled.

In this work, we describe the SiPM carrier boards, the assembly process and the qualification tests (IV curves and dark count) performed, before and after assembly, on the focal plane modules to qualify the procedures.

**Primary author:** FIANDRINI, emanuele (University&Infn erugia)

**Co-authors:** SIMONE, Daniela (BA); BISSALDI, Elisabetta (BA); GIORDANO, Gianfranco (LNF); AMBROSI, Giovanni (PG); MOVILEANU, Maria (PG); GIGLIETTO, Nicola (BA); PAOLETTI, Riccardo (SI)

**Presenter:** FIANDRINI, emanuele (University&Infn erugia)