## IFD2022 - INFN Workshop on Future Detectors



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## Gamma-ray identification with Imaging Atmospheric Cherenkov Telescopes

*Tuesday, 18 October 2022 15:00 (5 minutes)* 

The Imaging Atmospheric Cherenkov Telescopes (IACTs) represent one of the most successful detection techniques to observe gamma rays of astrophysical origin with energy above few tens of GeV. This technique is based on the detection of Cherenkov light emitted in atmosphere by particle showers which allows the reconstruction of energy and direction of the incoming particles. Fast and high resolution cameras consisting of arrays of thousands of photosensors, are ideal to capture particle shower images. Silicon Photomultipliers (SiPMs) are at the core of novel designs, especially for future IACT experiments, such as the Cherenkov Telescope Array (CTA), allowing improved performance with respect to standard Photomultiplier Tubes (PMTs). An overview of the photon detection technologies implemented in current and future experiments will be presented.

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