Poster:

# **Charge Resolution** Study on **AMS-02** Silicon **Layer 0 Prototype**

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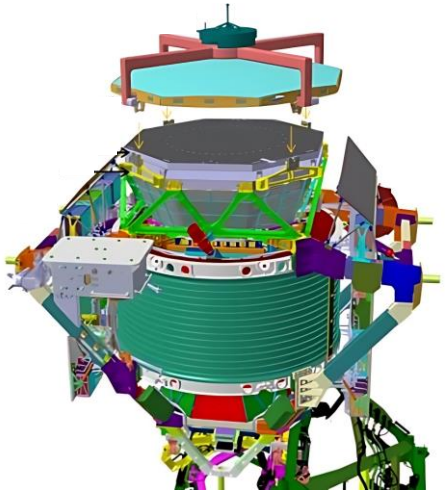
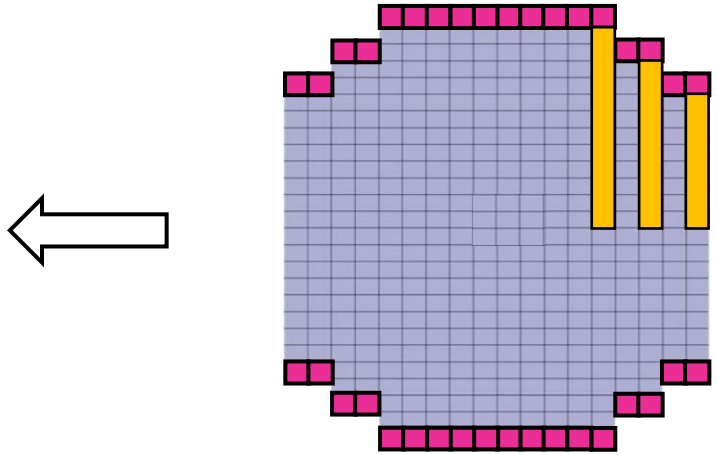
## Layer 0 (L0) upgrade

- By the end of 2024 AMS-02 will be subject to the Layer 0 upgrade that will add a layer of silicon tracker (L0) on top of the detector. The layer will be composed by **two planes of silicon micro-strips sensors that will be arranged in** mechanical-electrical units called **«ladders»**;

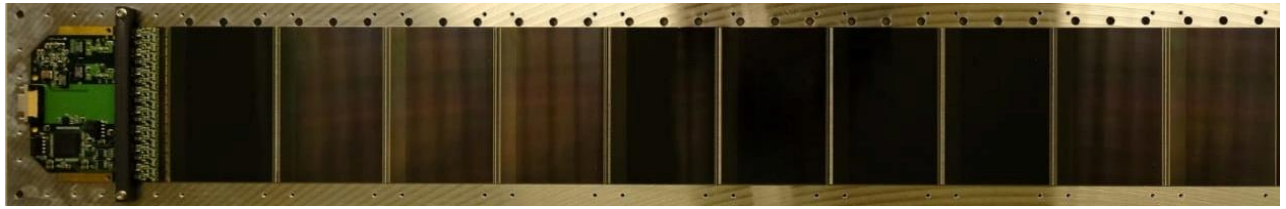




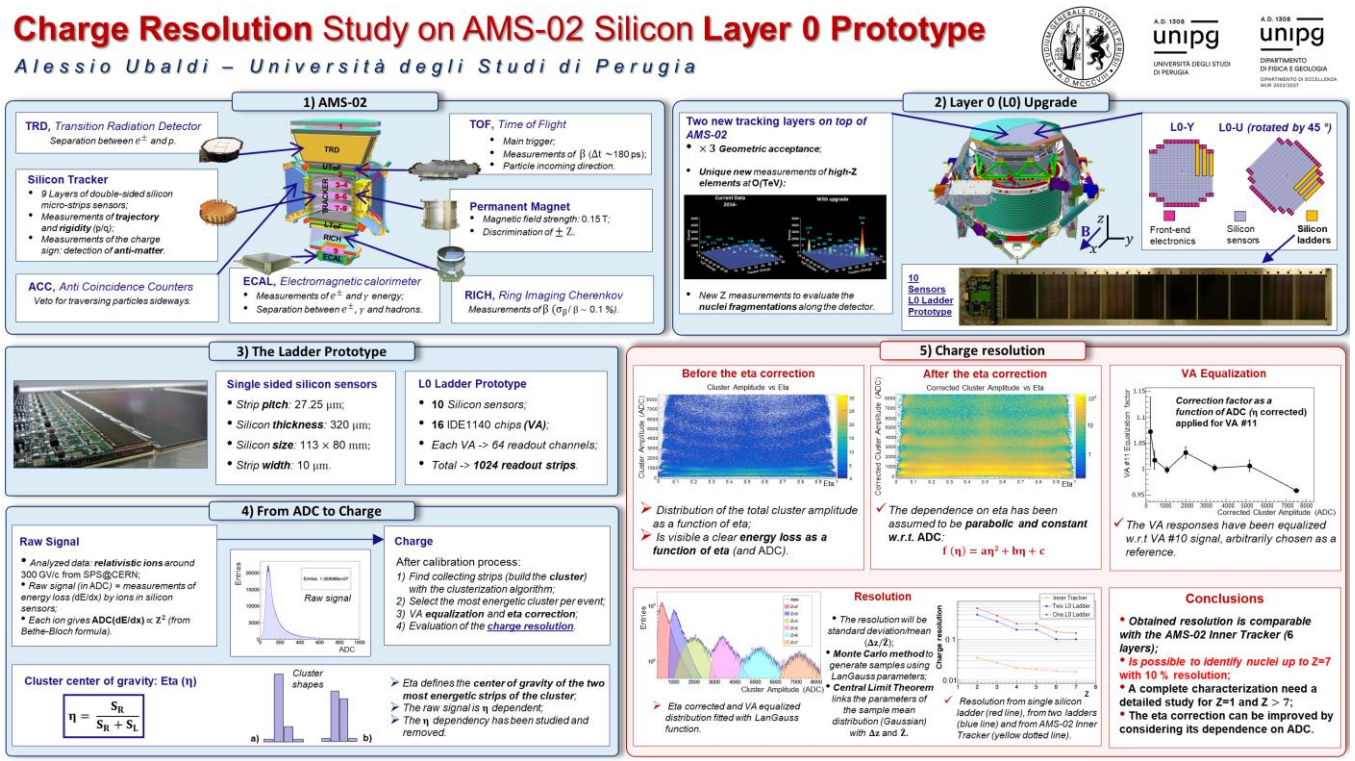
+ Silicon ladders of the upgrade

## Layer 0 ladder prototype

- A **10 silicon sensors ladder prototype** has been exposed to ions beam at CERN;
- The goal of my study was to evaluate the **charge resolution** of this ladder.



## The poster




## The content

- The AMS-02 experiment
- The Layer 0 upgrade
- The ladder prototype
- The procedure to analyze the signal
- The method to evaluate the charge resolution
- Comparison with the current AMS-02 resolution
- Conclusions

# Fine

Thank you for your attention.