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## **The Layer 0 upgrade of the AMS-02 experiment on the ISS: status and perspectives**

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In the end of 2026, the AMS-02 experiment on the International Space Station will undergo a major upgrade of its apparatus: a double layer of microstrip silicon sensors, for a total area of  $\sim 7 \text{ m}^2$  and almost doubling the total area of the microstrip silicon tracker, called Layer 0 (L0) will be installed on top of the current flying apparatus.

In this talk we'll present briefly the design and the major technological challenges and innovations related to the AMS-L0 upgrade.

We'll discuss how the upgrade will improve the physics capabilities of the experiment, in particular in terms of acceptance (i.e. collected statistics).

We'll conclude with a brief review of the results, obtained mainly with a large Beam Test campaign at CERN, with the prototypes and with some first flight microstrip silicon sensor models.

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