
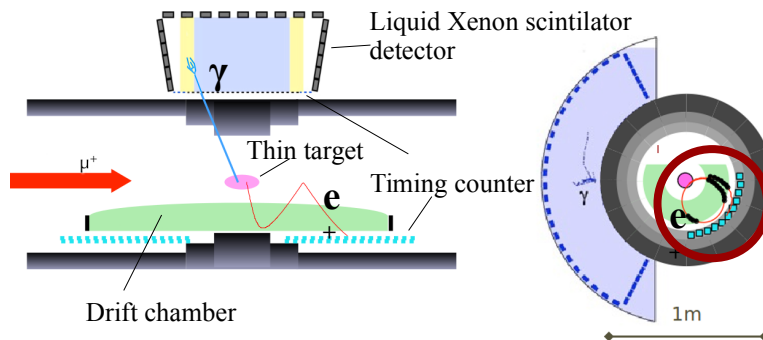




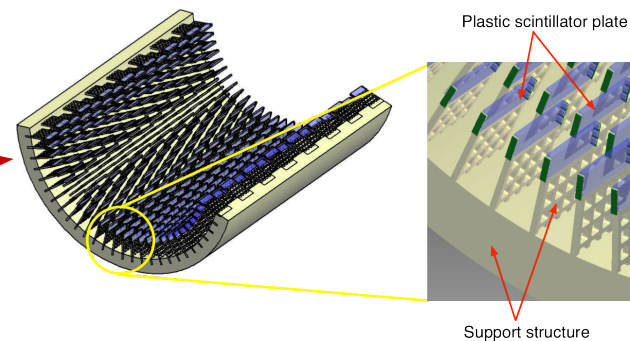
# Test and characterisation of SiPMs for the MEG high resolution timing counter



- $\mu^+ \rightarrow e^+ \gamma$  is a forbidden decay in the Standard Model (SM): its discovery would open a door to new physics beyond the SM. It is predicted by supersymmetric theories
- The MEG Timing Counter (TC) will measure the positron time of arrival with a resolution of 30 ps, thus improving by 1 order of magnitude the existing limit
- Countries 
- The presenter is Marcello Simonetta<sup>1,2</sup> on behalf of MEG TC Collaboration



MEG experiment sketch



MEG Timing Counter sketch

1. Università degli Studi di Pavia, via Bassi 6, 27100 Pavia, Italy

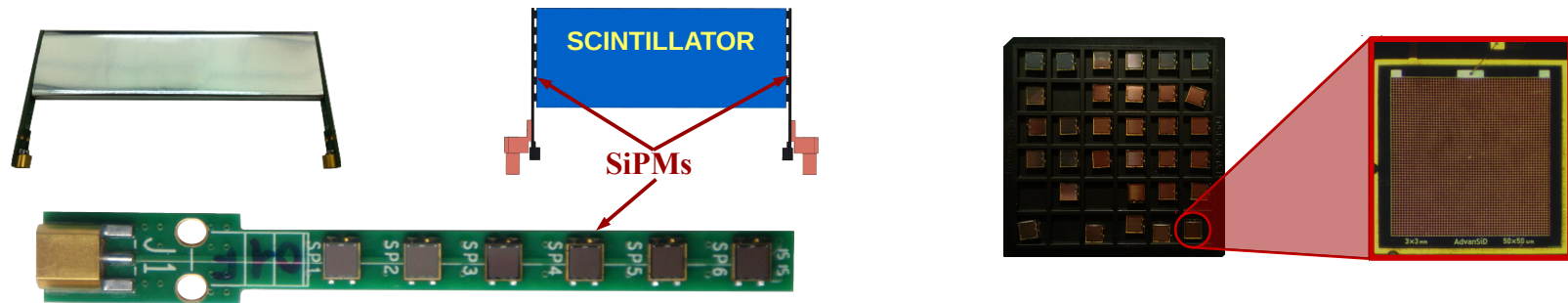
2. INFN, sez di Pavia, via Bassi 6, 27100 Pavia, Italy



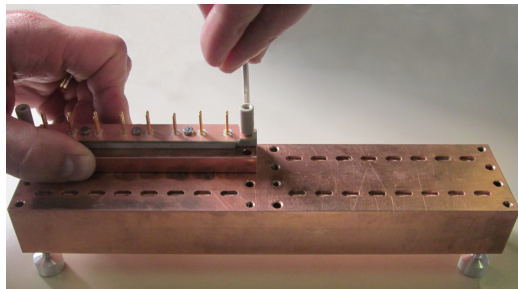
# Test and characterisation of SiPMs for the MEG high resolution timing counter



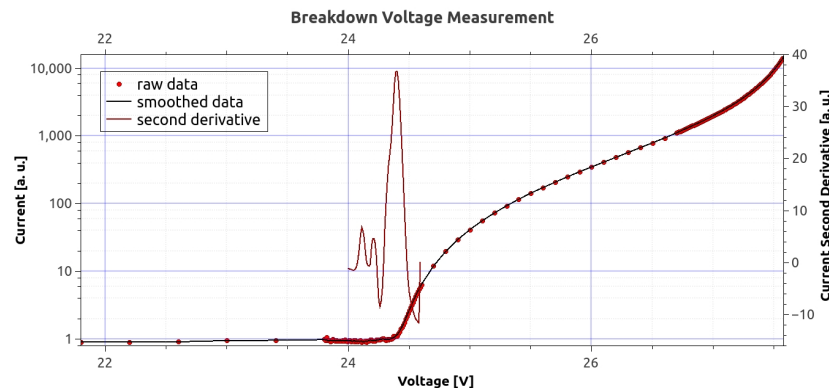
- Each TC's pixel is made of a plastic scintillator and of 6 SiPMs attached at both sides



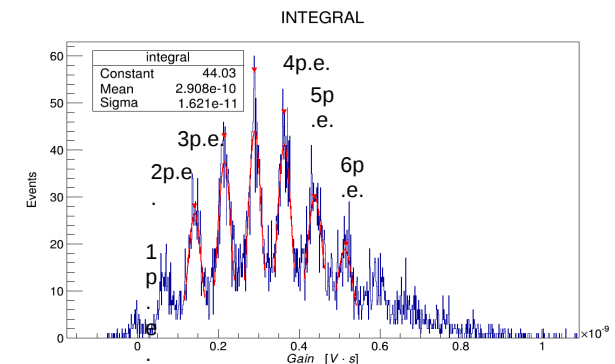
- 4000 SiPMs have been tested and their breakdown voltage and gain have been measured



SETUP



BREAKDOWN VOLTAGE  
MEASUREMENT



GAIN MEASUREMENT