

# Status Setup CACTUS Milano-Bicocca

CACTUS@MILANO-BICOCCA

DUNE Photosensor WG Meeting (DUNE-SP-PDS)

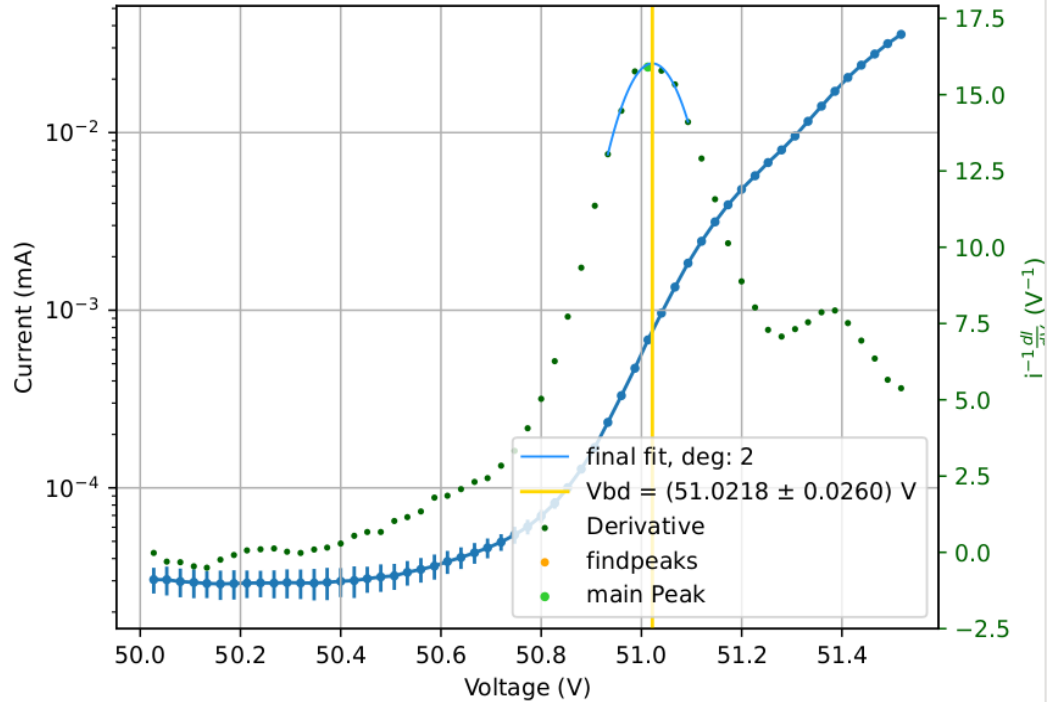
September 19, 2023

- We are finalizing the commissioning:
  - Reduced noise and light sources inside and outside the black box: changing cables, grounding, sealed bottom and external junctures of the black box with tape. Added another curtain layer to the entrance (lab has skylights, light reduction is a bit tricky).
  - Improved the DCR values ( $\sim 10$ -200 counts per 120 s per SiPM) and the IV curve.

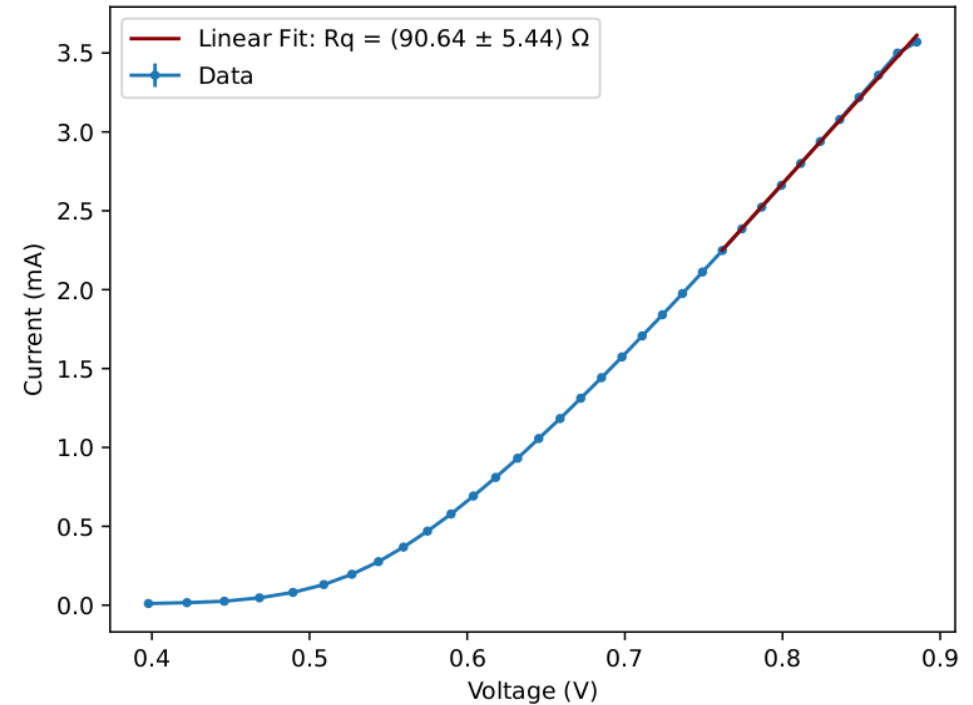


## Room temperature

Reverse IV curve of ARDUINO 0, SiPM 0

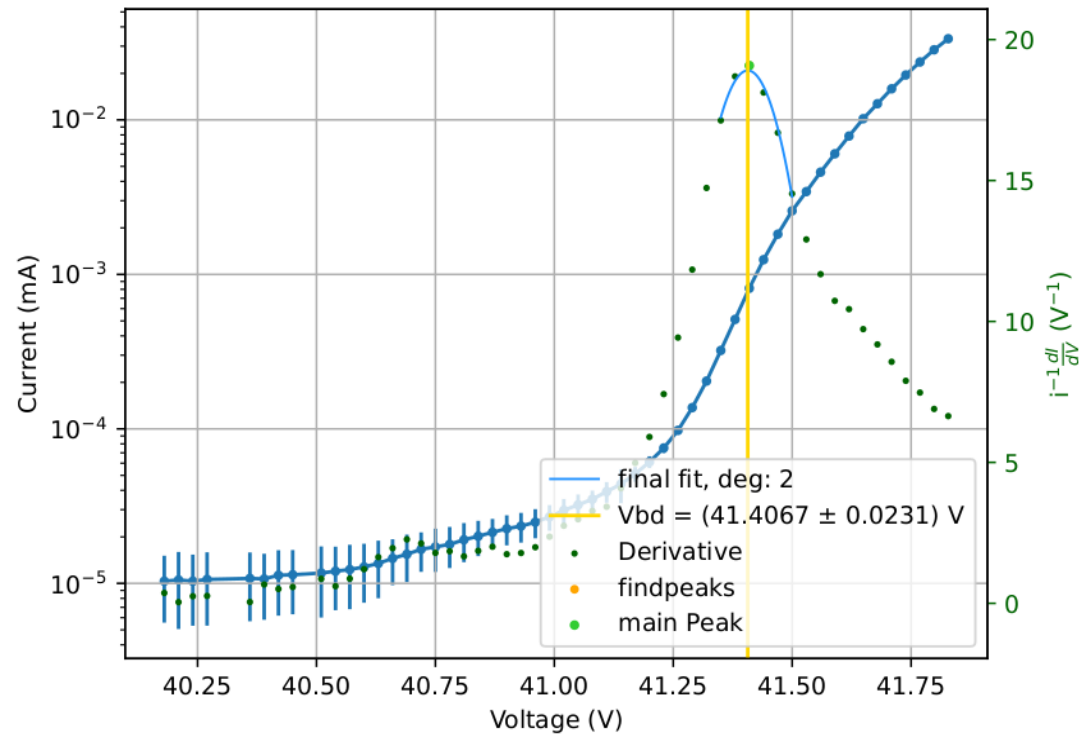


Forward IV curve of ARDUINO 0, SiPM 0

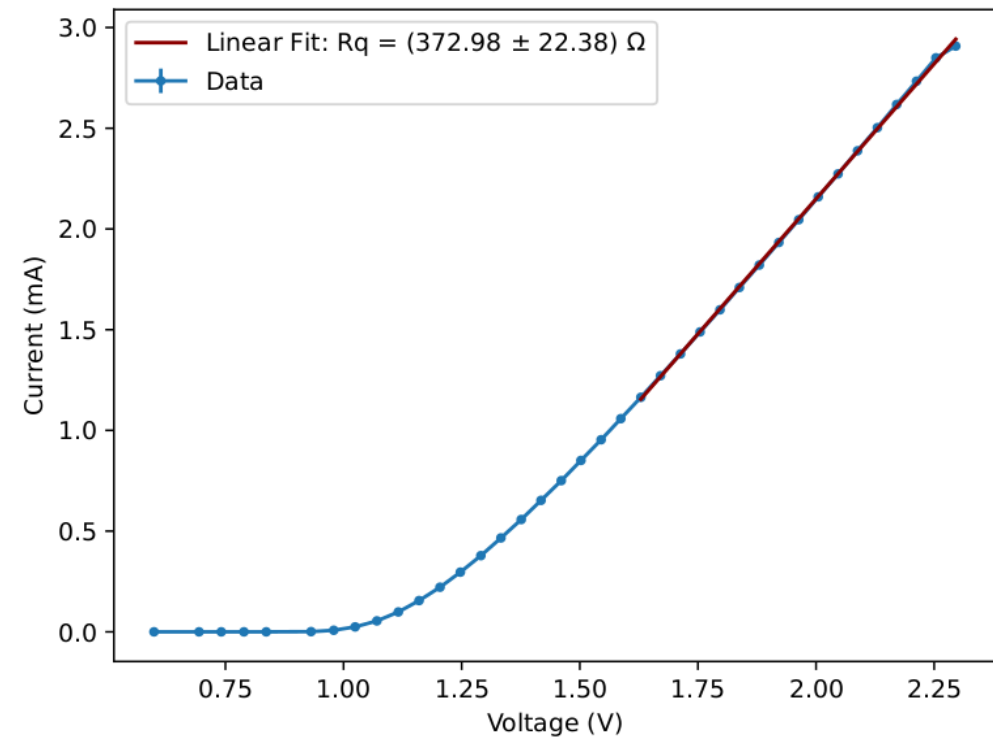


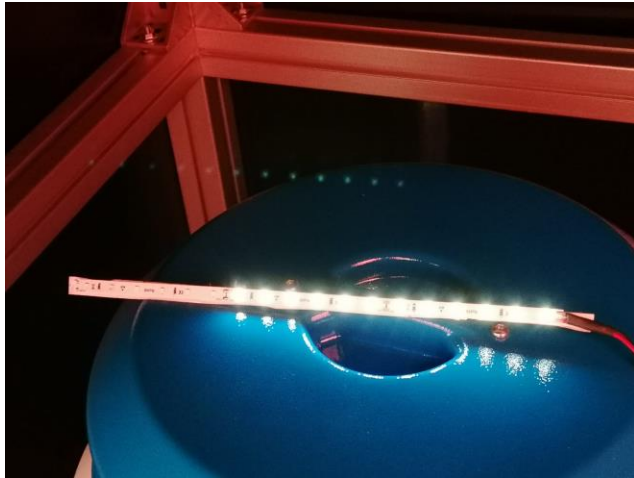
## LN2 temperature

Reverse IV curve of ARDUINO 0, SiPM 0



Forward IV curve of ARDUINO 0, SiPM 0





- LED strips have not performed well inside the dewar, breaking and losing contacts during the first thermal cycle (this problem seems to have occurred only in MiB). We have tested with individual LEDs and they are more resistant to LN2.
- A system is being designed to fix the position of the Dewar w.r.t. the lid and the manipulator
- We will restart the tests after the CM

Delivery	Box #	Trays
2	9	1-24
2	12	73-96
3	14	1-24

- Italy Hamamatsu delivered the first 6 boxes.