

Status Setup CACTUS Milano-Bicocca

CACTUS@MILANO-BICOCCA

DUNE Photosensor WG Meeting (DUNE-SP-PDS)

January 16th, 2024



- We are testing the third box:

Delivery	Box	Tray	Status
2	9	1-24	Completed
2	12	73-96	Completed
3	14	1-24	In progress

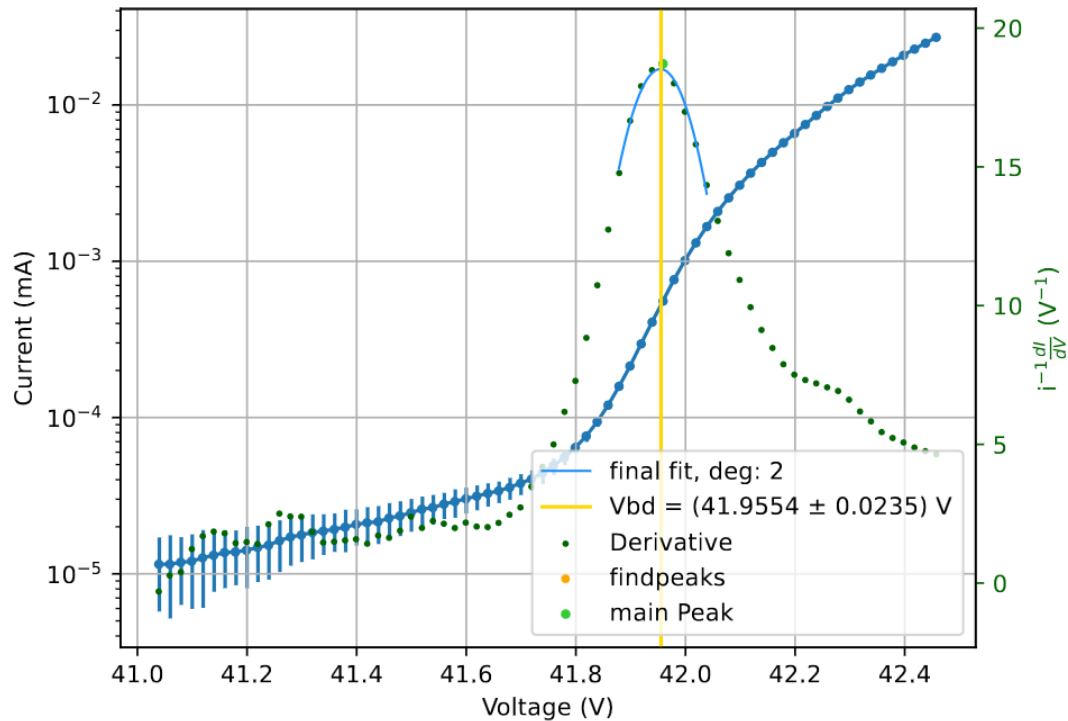
We find a noisy SiPM in the third box, on tray #2. It was identified through the extended IV curves and the high DCR value. Although it presented an anomalous reverse curve.

DCR result

68 002	0000004365	2	2	1	80	18.52
69 002	0000004365	1	2	0	167	38.66
70 002	0000004376	1	2	24	329	76.16
71 002	0000004376	2	2	25	507	117.36
72 002	0000004376	3	2	26	664	153.7
73 002	0000004376	4	2	27	2291	530.32
74 002	0000004376	5	2	28	1746885	404371.53
75 002	0000004376	6	2	29	2805	649.31
76 002	0000004373	1	2	18	148	34.26
77 002	0000004373	2	2	19	244	56.48
78 002	0000004370	3	2	14	373	86.34
79 002	0000004370	2	2	13	394	91.2
80 002	0000004370	1	2	12	45	10.42

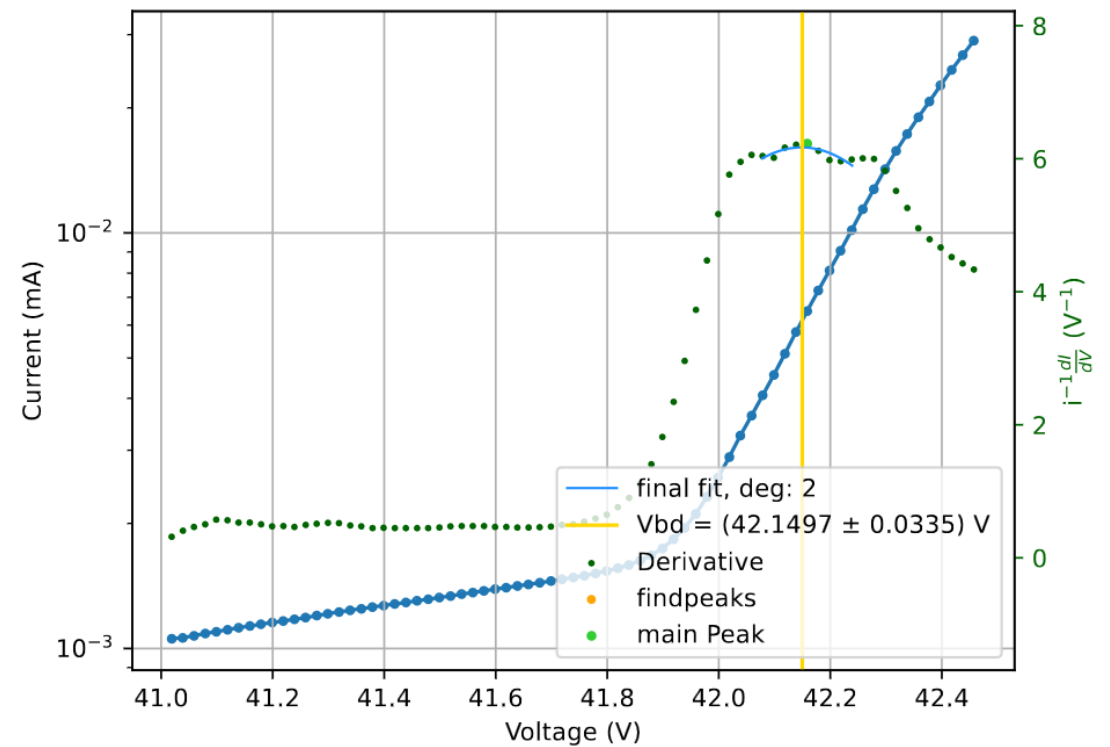
**Usual reverse curve* obtained on the other boards.

Reverse IV curve of ARDUINO 2, SiPM 27



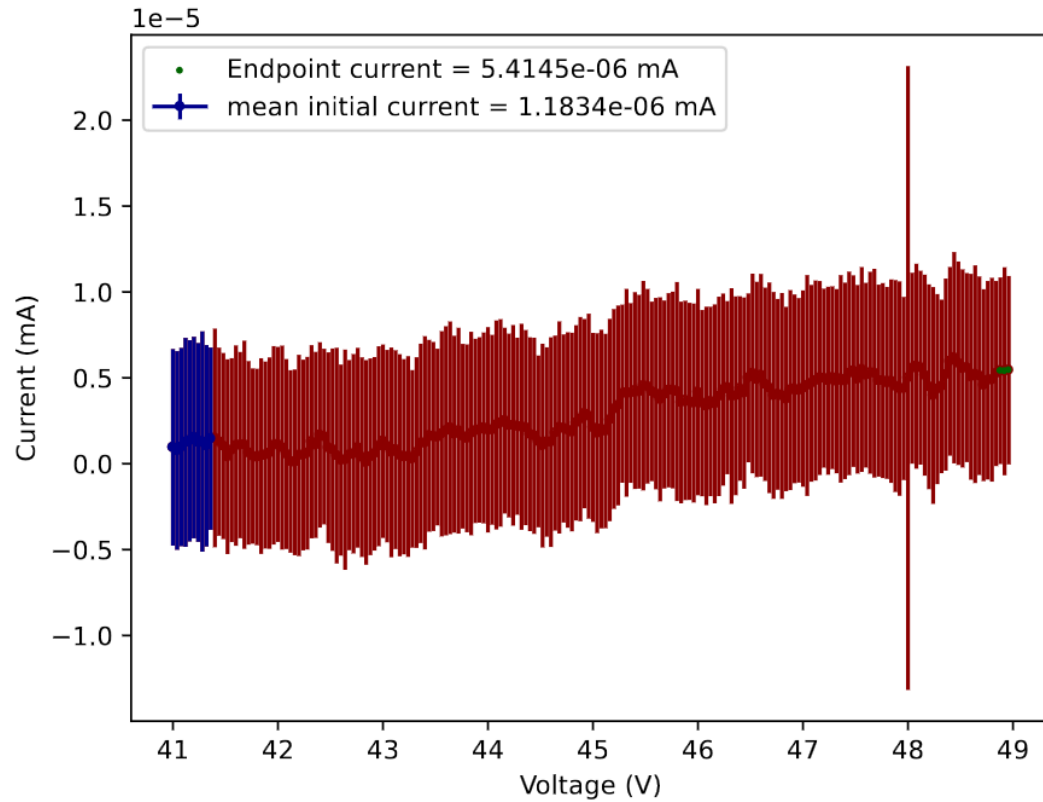
**Anomalous reverse curve*.

Reverse IV curve of ARDUINO 2, SiPM 28



*Usual extended IV curve obtained on the other boards.

Extended IV curve of ARDUINO 2, SiPM 27



*Anomalous Extended IV curve.

Extended IV curve of ARDUINO 2, SiPM 28

