INFN-CT@n_TOF

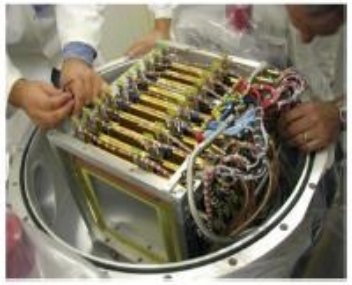
- ***A. Musumarra (UNICT &INFN-CT)***
  - ***M.G. Pellegriti (INFN-CT)***
    - ***F. Romano (INFN-CT)***

INFN-CT & UNIBO & INFN-BO

In collaboration with undergraduate students:

A. Barbon
A. Pitronaci
A. Malviya

n_TOF italian collaboration meeting 26/09/2022

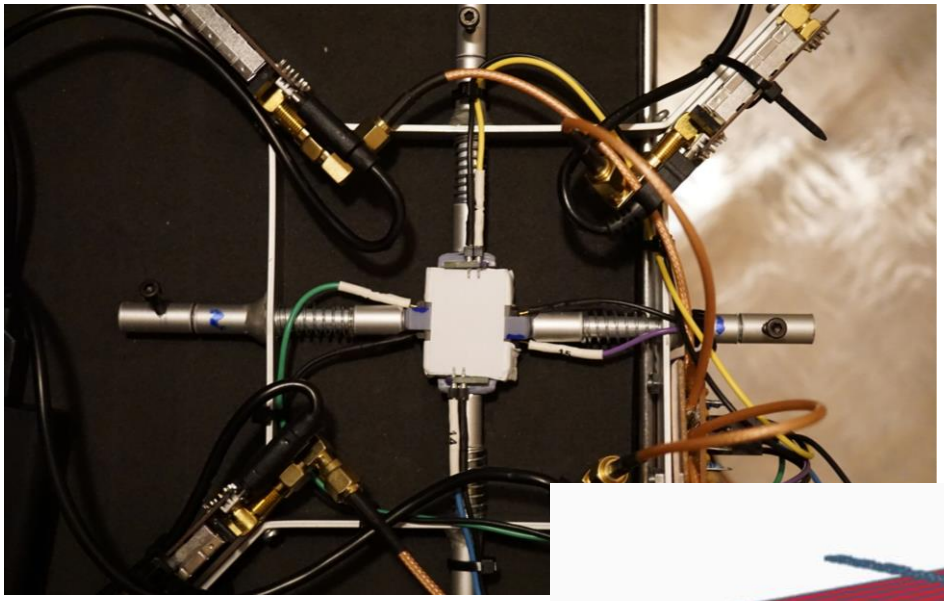



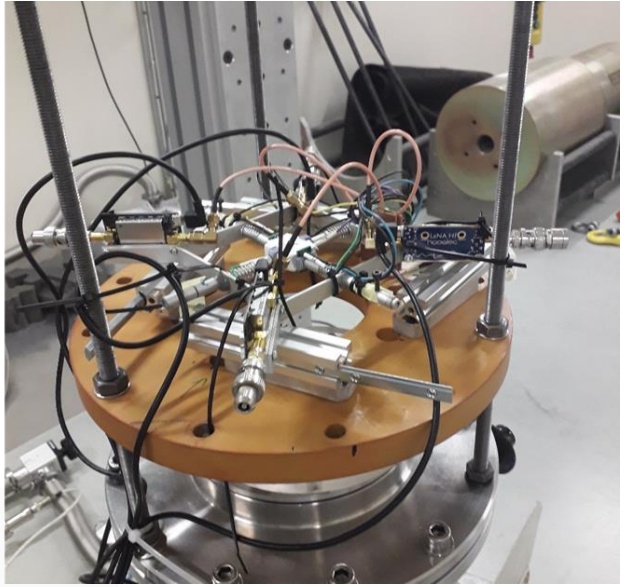

Activities

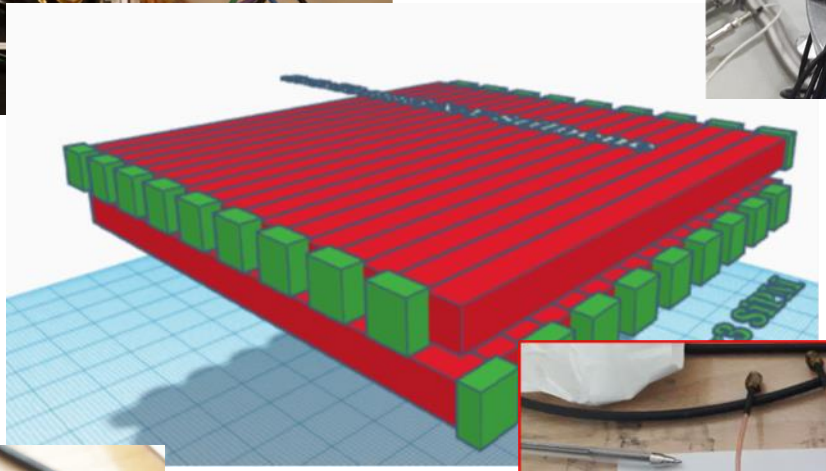
In charge of:

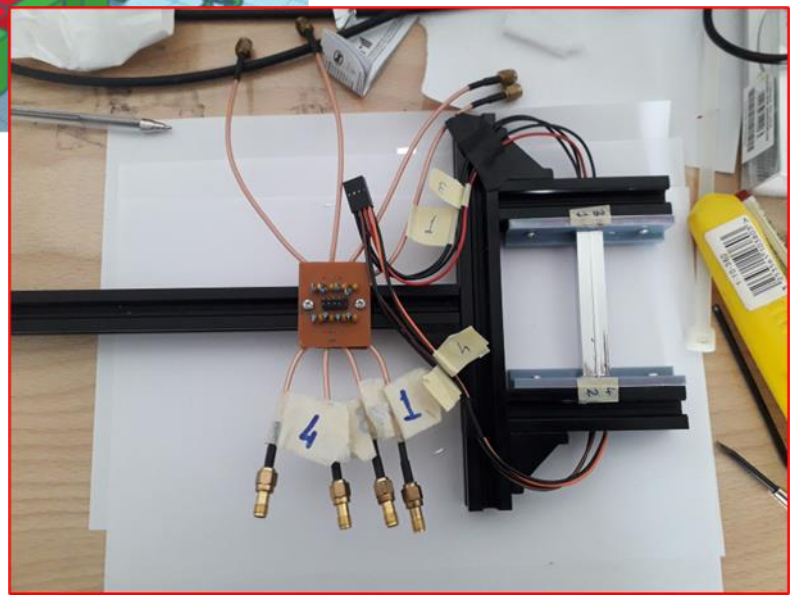
- ***Nuclear Physics: the $^{2}H(n,p)nn$ (n_TOF LoI)***
- ***TaraT active target development and test***
- ***RIPTIDE development of a new Recoil Proton detector***
- ***Beta-decay setup@NEAR (with N. Patronis)***
- ***New detectors for n-γ measurements – d-Stil (Spanish-Italian collaboration)***

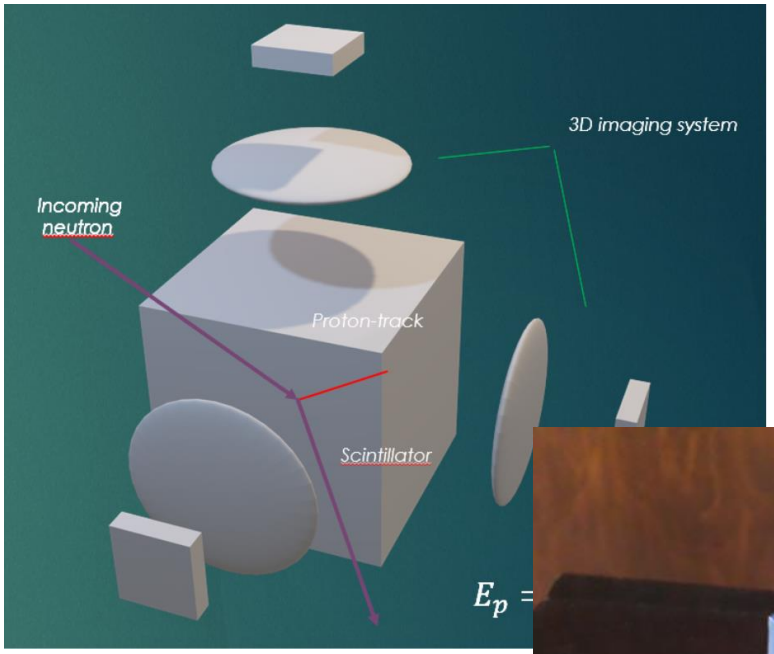
Three weeks of measurement@CERN three detectors/prototype tested

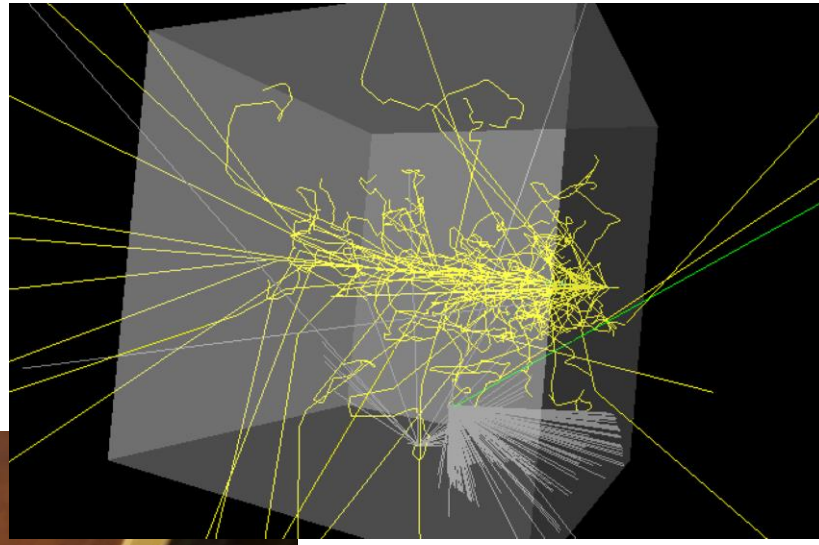


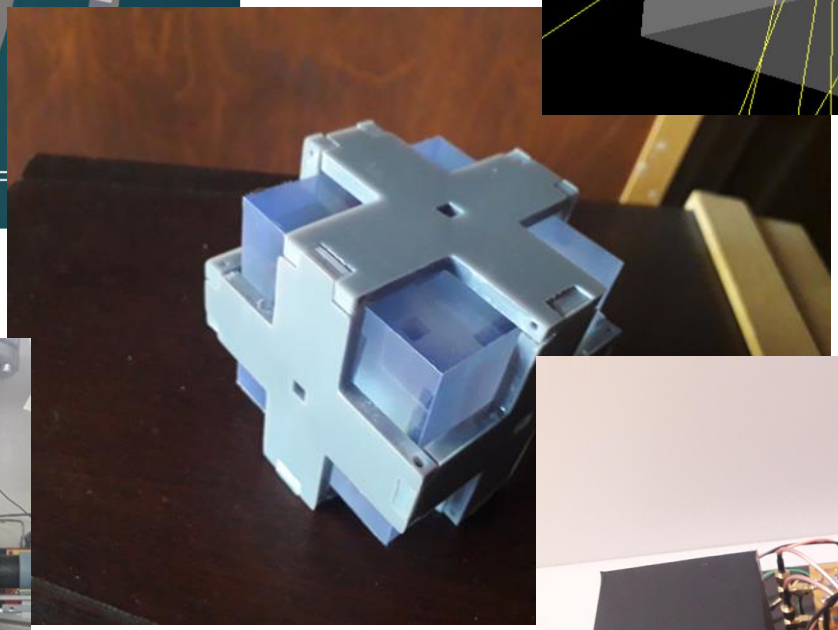


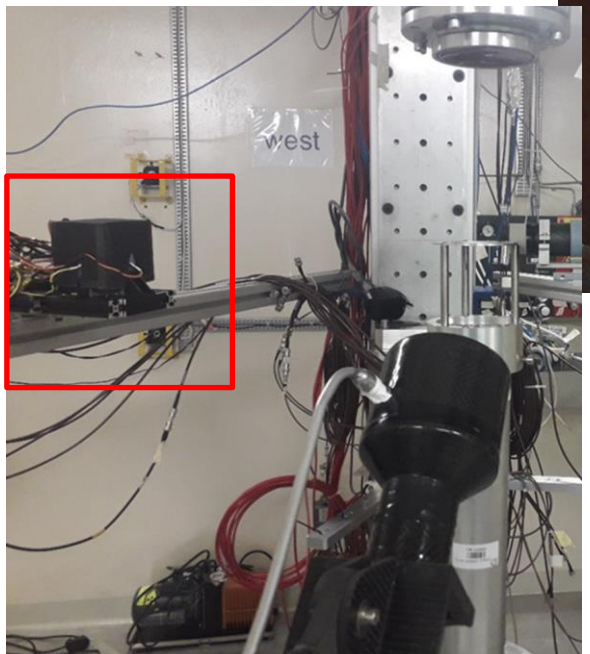


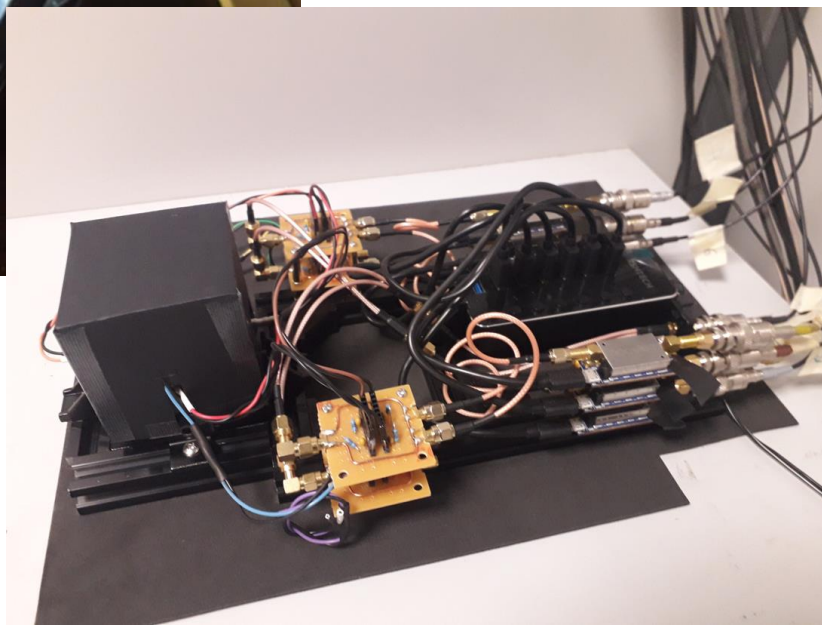

4
1

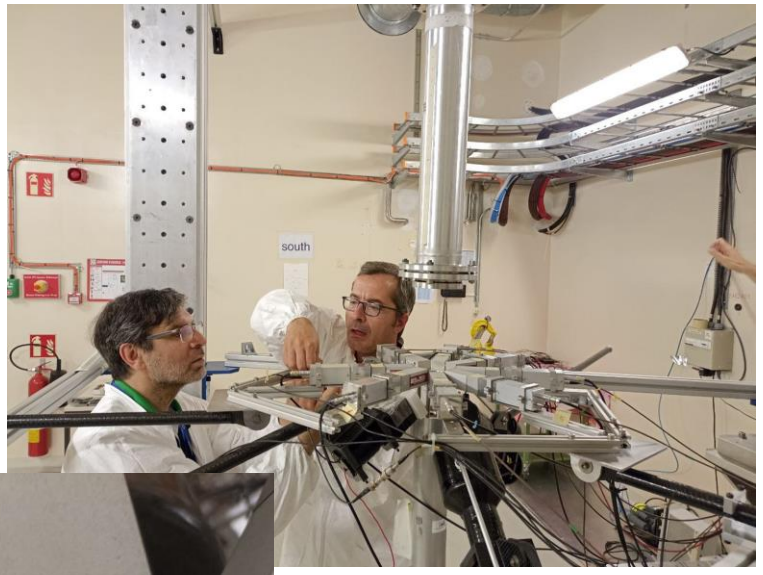

3D imaging system
Incoming neutron
Proton-track
Scintillator
E_p =

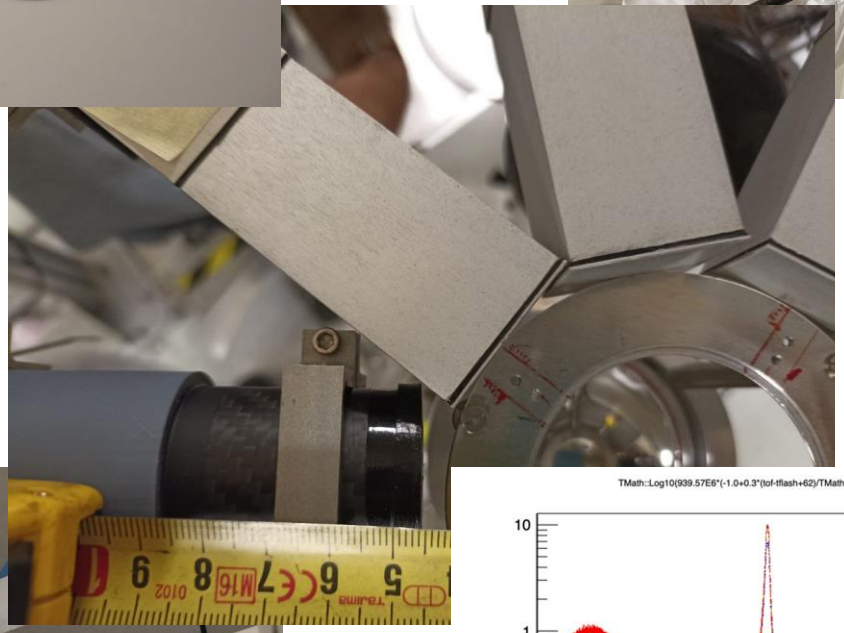


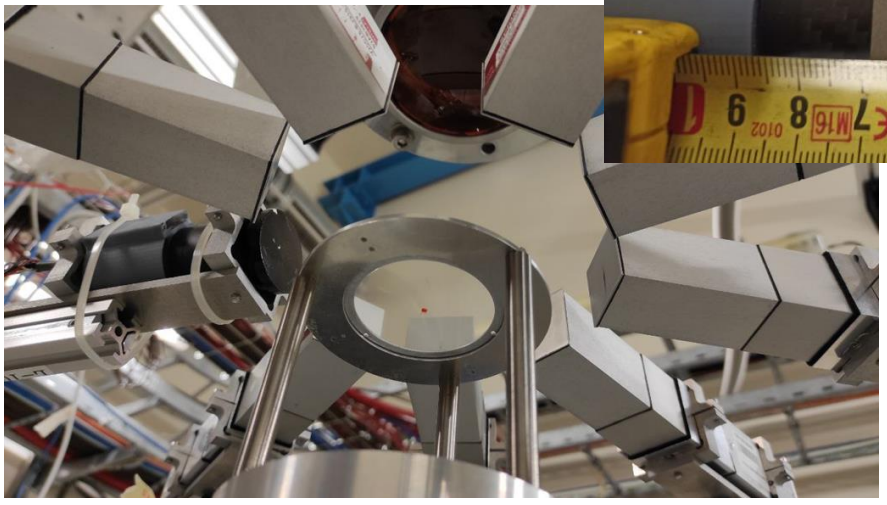


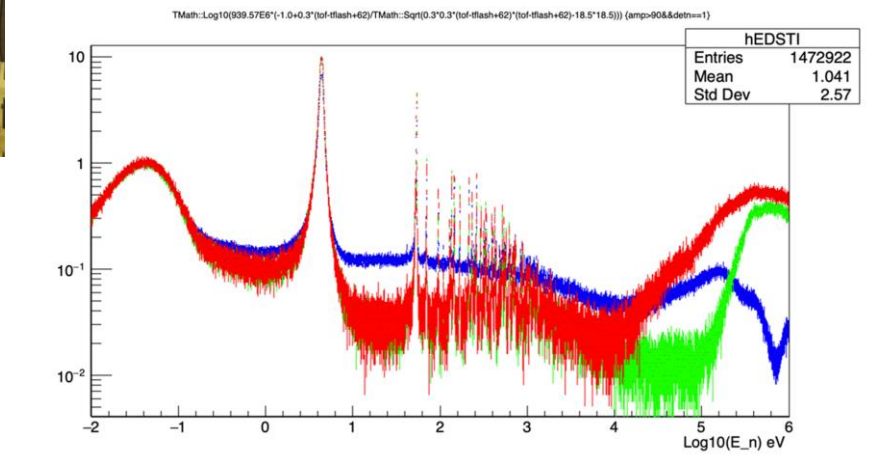

west




south



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hEDSTI
Entries 1472922
Mean 1.041
Std Dev 2.57
10
1
10^{-1}
10^{-2}
−2
−1
0
1
2
3
4
5
6
Log10(E_n) eV

Acquisti – Sezione di Catania 2022

Dispositivo	Ordine		Importo (euro)
TaraT	n. 4 Scint. EJ-200 bars (6x5x70mm3)	Scionix	390 + 85
	n. 10 SiPM 3x3mm2	Hamamatsu	878
	n. 2 Controlled Power supply for SiPM	Caen	932
Riptide	n. 2 CMOS camera	Zwo	3662
	n. 2 Macro Optics	Sony	616
	n. 1 Micrometric Translator	Thorlabs	2402
	n. 1 Scint EJ-200 4x4x4cm3 cube	Scionix	415
d-Stil	n.4 Power supply (active base)	Sens-Tech	1837
	n. 1 Photomultiplier (quartz window)	Hamamatsu	752
	n. 4 Stilbene ϕ=1''x1'' (cylinder)	Scintinel INRAD consegna fine ottobre	5026 – (Ant. Dot Gr. III CT)

Attività 2023

Status - Assegnazioni 2022 - Sezione di Catania

Descrizione fondi	Stanziato (euro)	Disponibile (euro)
Consumo	6000	1070
Missioni	11000	2513
Trasporti	1000	342
Apparati	7000	381
Anticipo (2023) - Apparati	5000 ?	

Missioni previste:

→ Missione CERN (ottobre) richiesta per NEAR
→ Meeting internazionale n_TOF Edimburgo (dicembre)

Tutte le assegnazioni previste sono state portate a termine
grazie alla perseveranza di ***Maria Grazia Pellegriti (nuovo responsabile locale 2023)***