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# Scientific cryo-detectors instrumentation developments

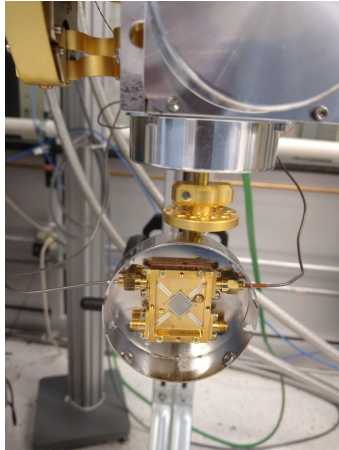
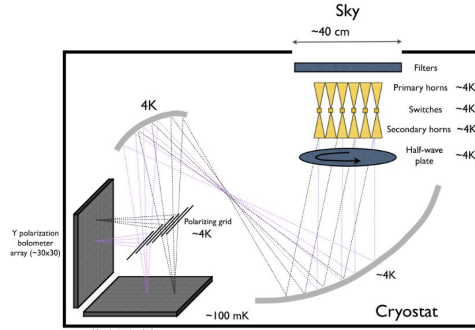
Horacio Arnaldi

Biennale APC - 22/05/2024

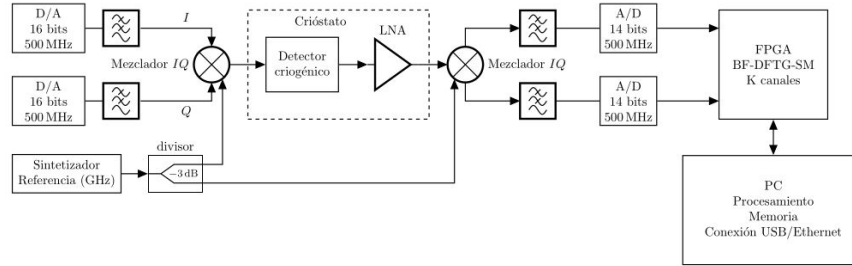




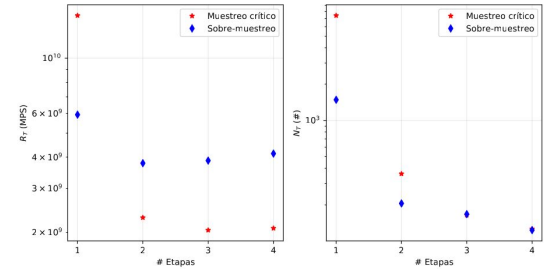
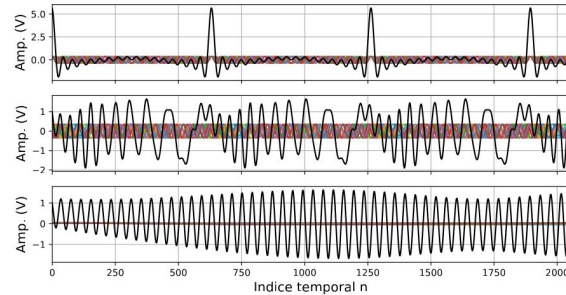
# Who am I?



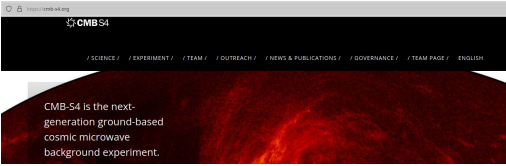
## MKIDs detection chain developments (QUBIC)



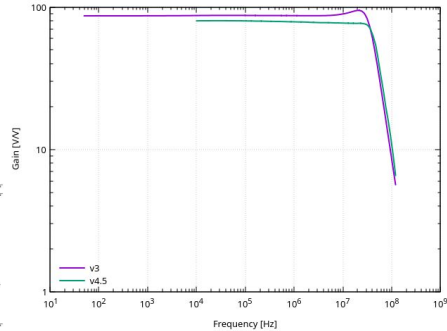
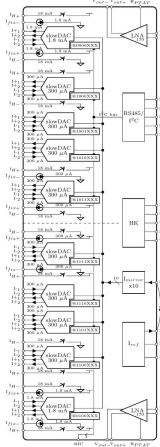
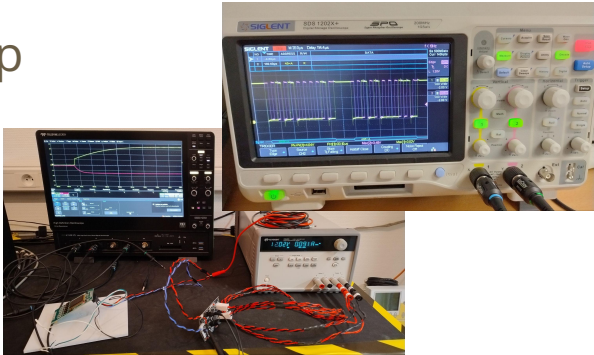
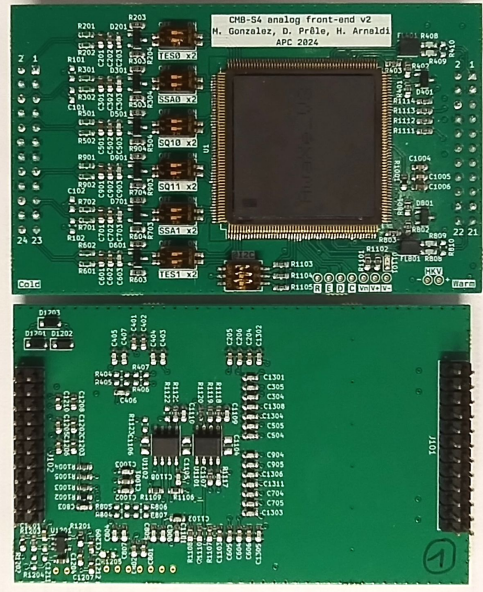
- How to readout many (~10000) cryo-detectors
- Optimizing hardware usage in the process



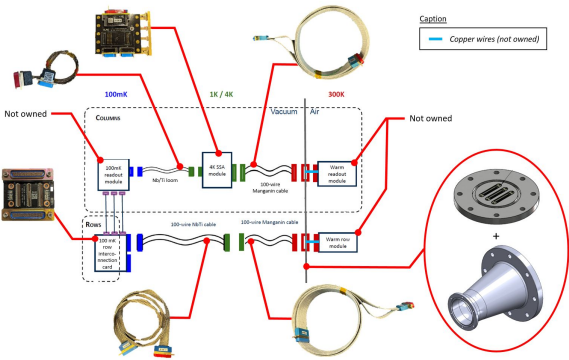
# CMB-S4



- RO Working Group



## Cryo setup at APC



Schematic of the APC-Lab dilution instrumentation for the read-out module test (CMB-S4)

30/04/2024

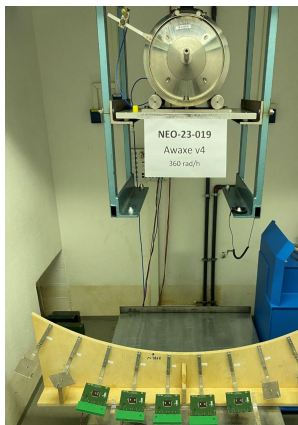
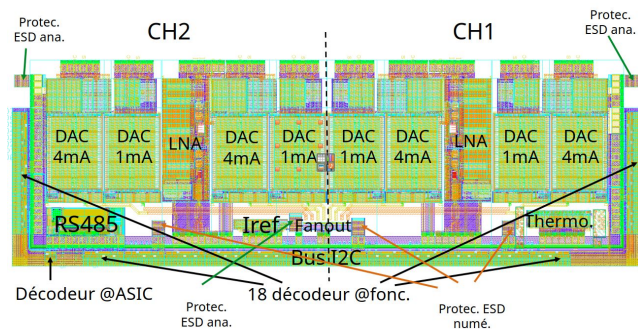






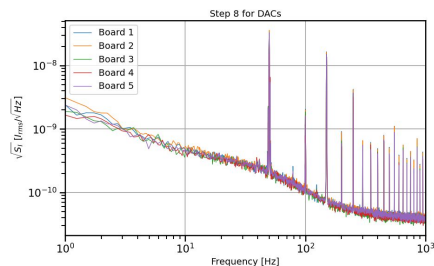
# Athena - WFEE

- ASIC developments/tests
- Irradiation test @Germany
- Low-noise detection chains

✈ Dimensions: 2140 um x 6550 um



	<b>ATHENA X-IFU WFEE</b> AstroParticule et Cosmologie, Université Paris Cité	Ref.: AwaXe.v4-TID-report Issue: 1
	Technical note	Page: 1 of 49
AwaXe.v4 TID report		
<div>  </div>		
<b>1 Objective</b> Report of the AwaXe.v4 total ionizing dose (TID) characterization.		



## WFEE Demonstration Model delivered to CNES

Home - Announcement - Photos - WFEE Demonstration Model delivered to CNES



**Merci!**