



Istituto Nazionale
di Fisica Nucleare

TIFPA

Trento
Institute for
Fundamental
Physics and
Applications



The enhanced X-ray Timing and Polarimetry mission will cost around three billion yuan (£340m) and is set to launch by 2025 (courtesy: Institute of High Energy Physics)

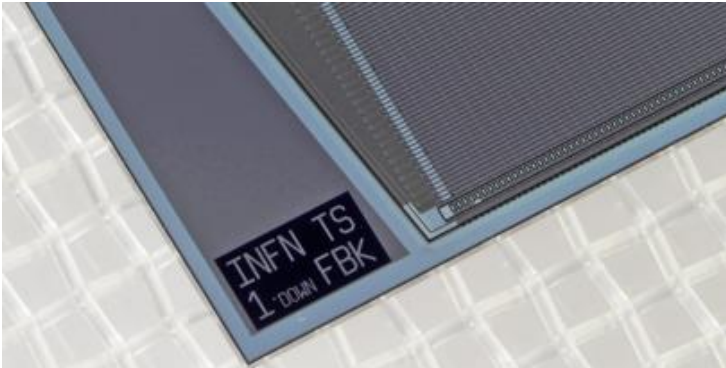
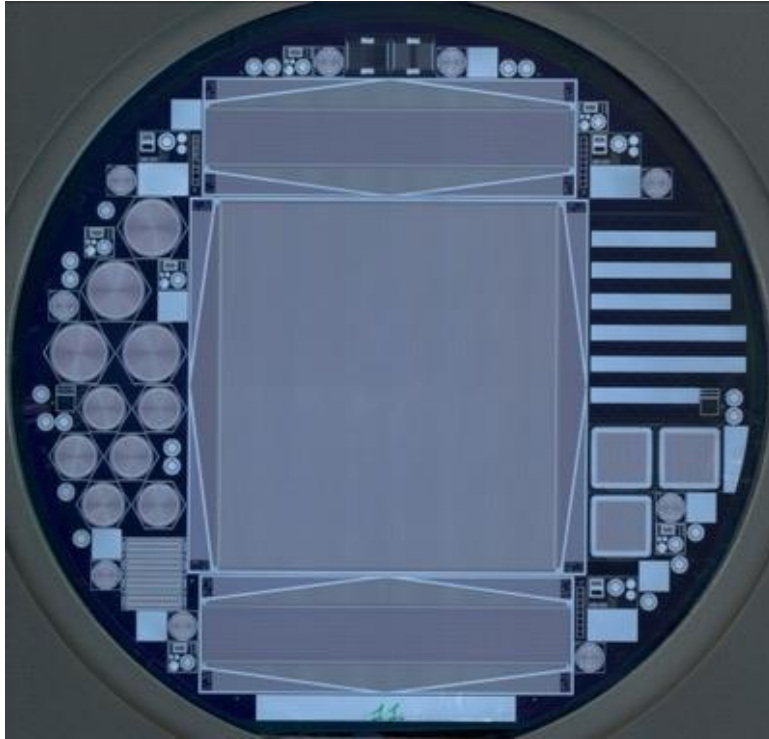
XRO

X-RAY OBSERVATORIES

Irina Rashevskaya

2025 CSN2

XRO



- Sigla CSN2 da 2021

IXPE Imaging X-Ray Polarimetry Explorer -
L. Baldini (PI)

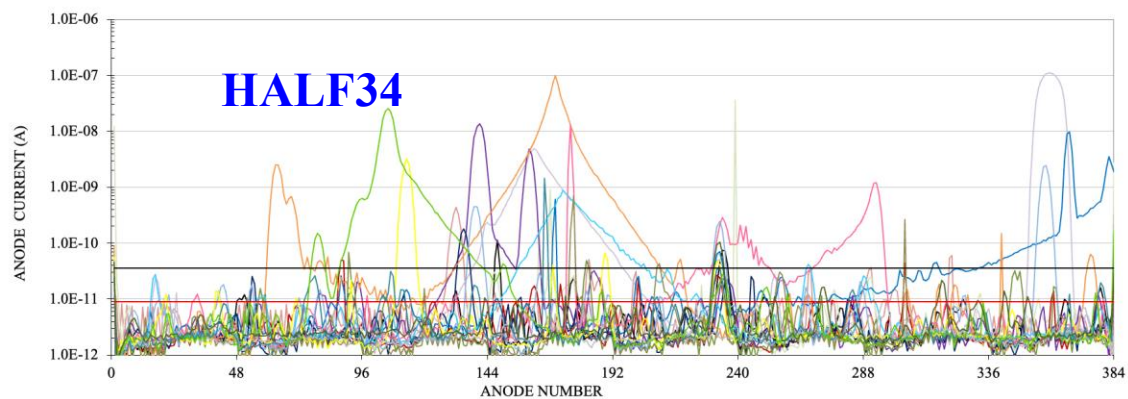
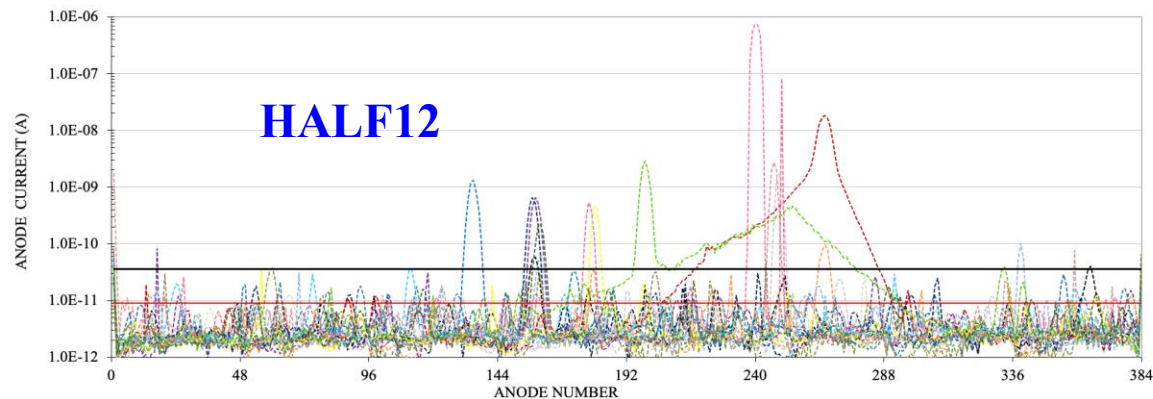
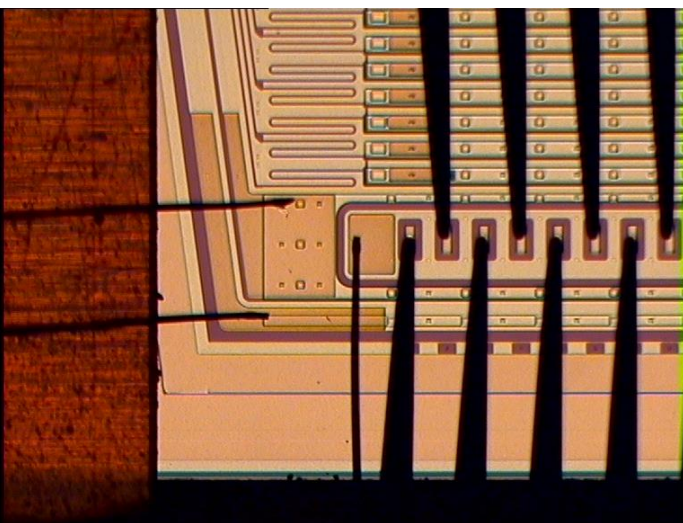
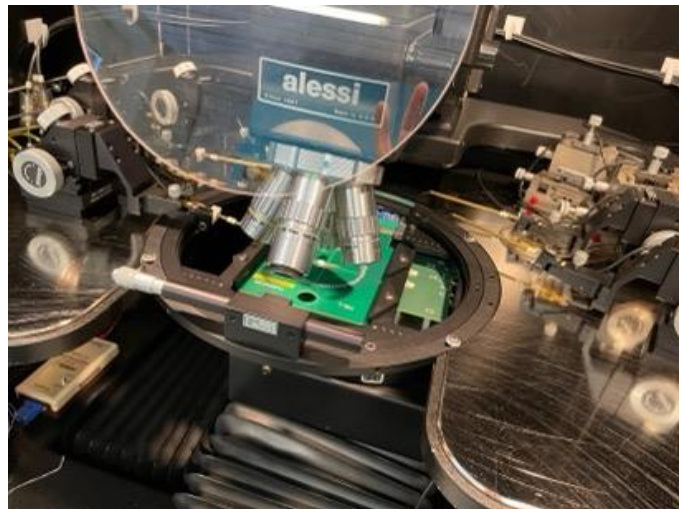
eXTP enhanced X-ray Timing and Polarimetry
G. Zampa (TS)

Nel 2024 e' stato chiesto il prolungamento di
eXTP per un anno

- Strutture partecipanti: TS, PI, TO, MI, PV, BO, TIFPA, PG, RM2
- ~ 30 FTE complessivi
- Attivita' di TIFPA focalizzata su **eXTP**
Silicon Drift Detector di grande area LAD e WFM



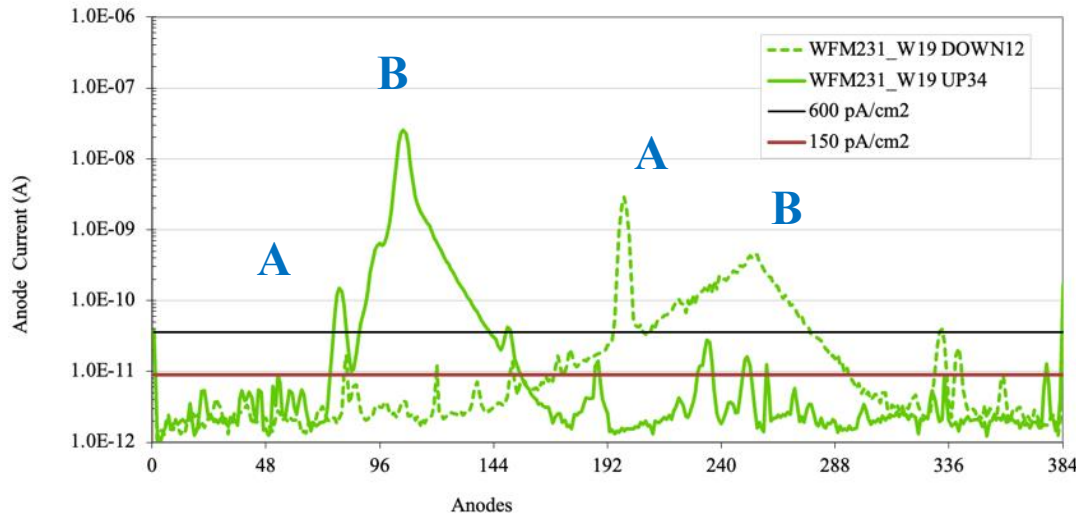
WFM 231 TEST 20 sensori



Classe A (98% < 600pA/cm2)	8 sensors	(yeld 40%)
Classe B	9 sensors	
Classe C	2 sensors	
Mechanical grade	1 sensor	



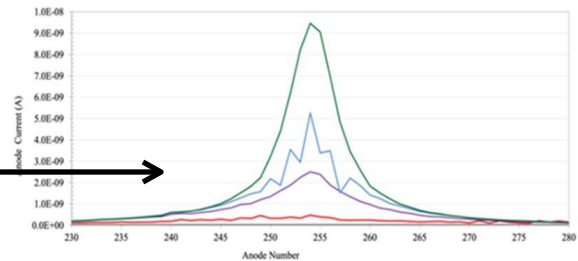
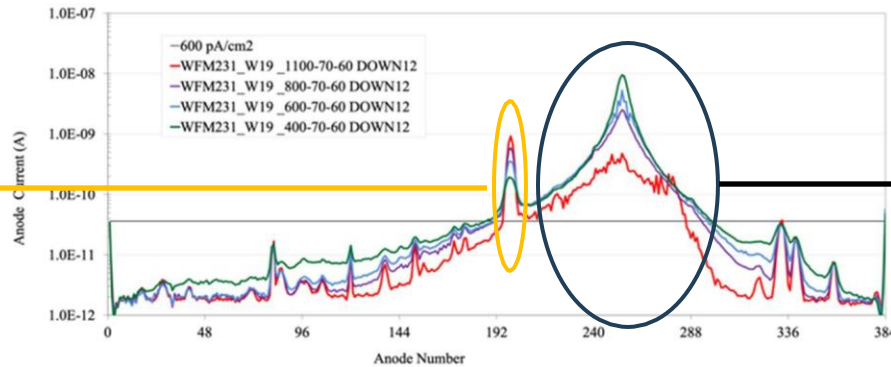
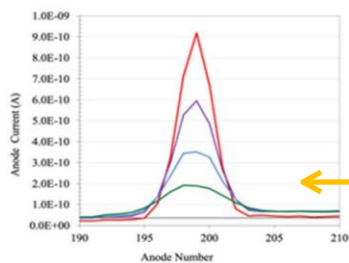
WFM 231



Two types of defects

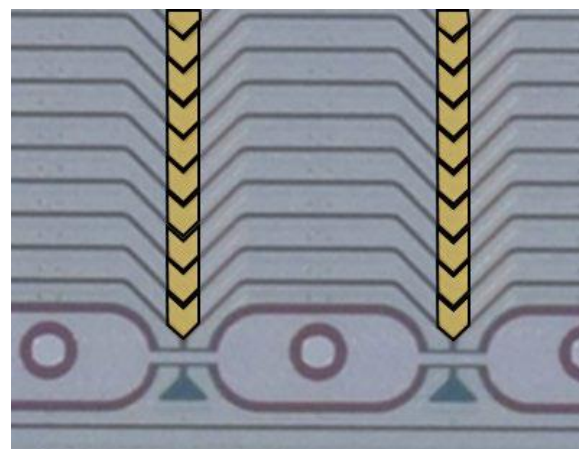
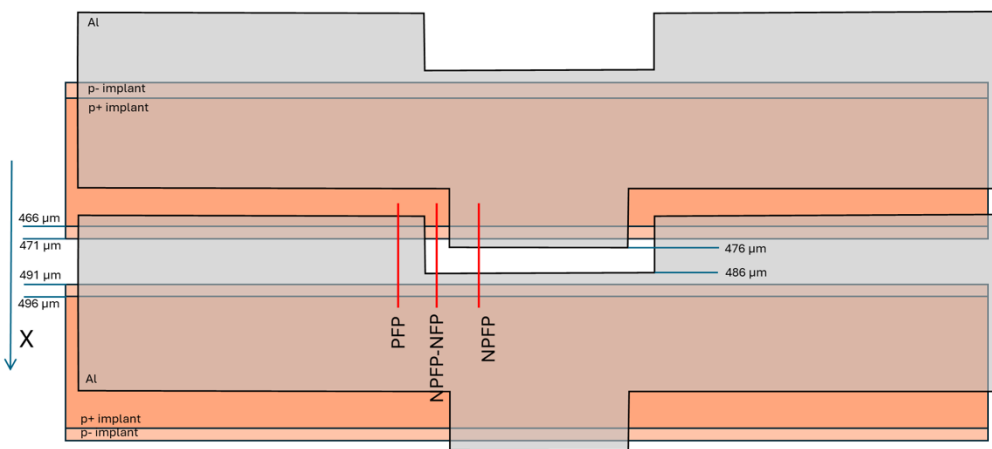
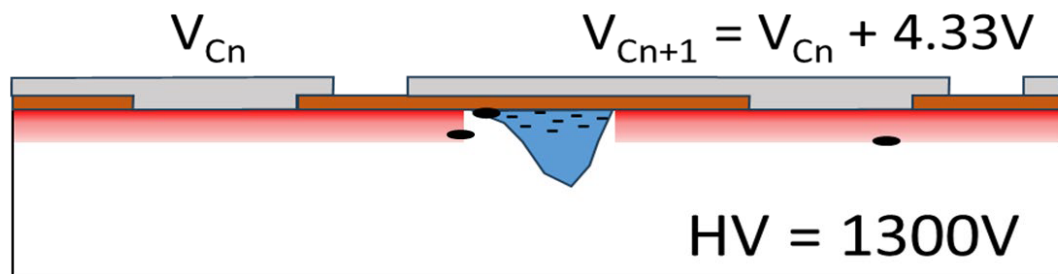
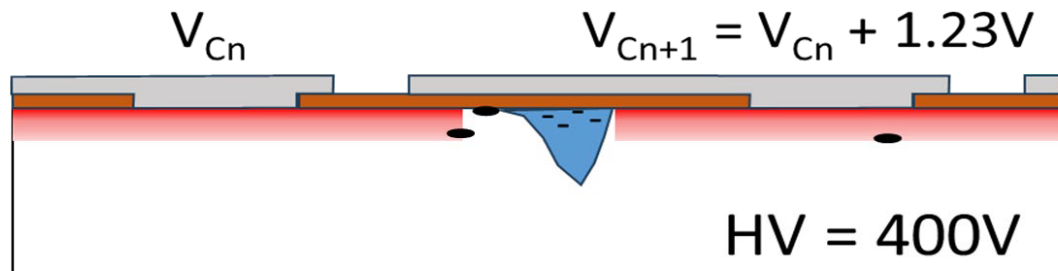
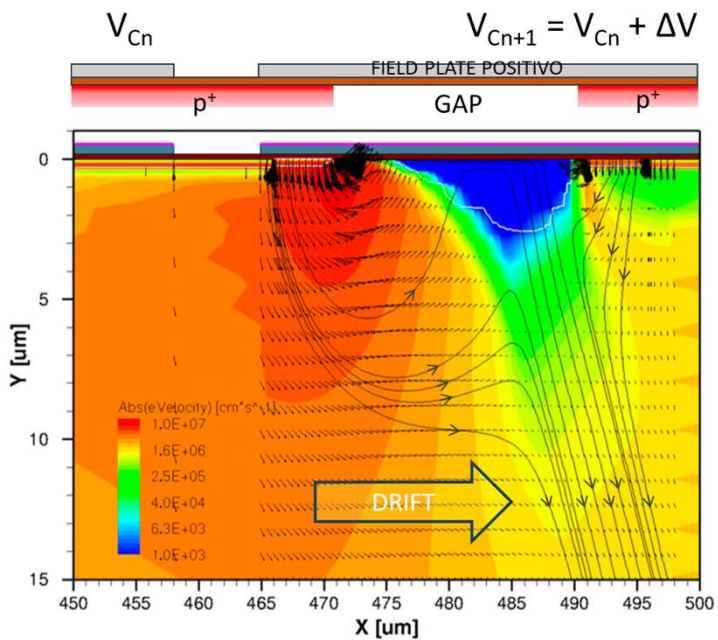
- A “Normal” peak 8-10 Anodes
- B “Triangle” 80-150 Anodes

V C0 = 400V, 600V, 800V, 1100V





WFM





Istituto Nazionale
di Fisica Nucleare

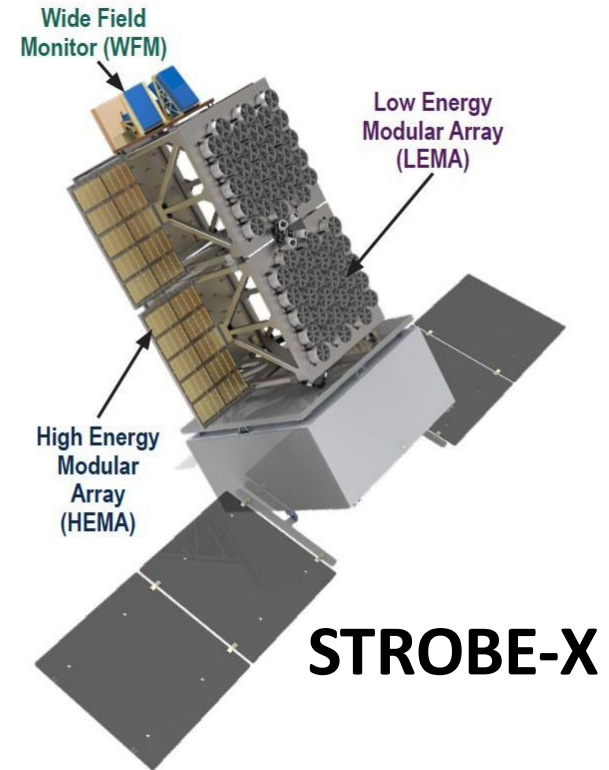
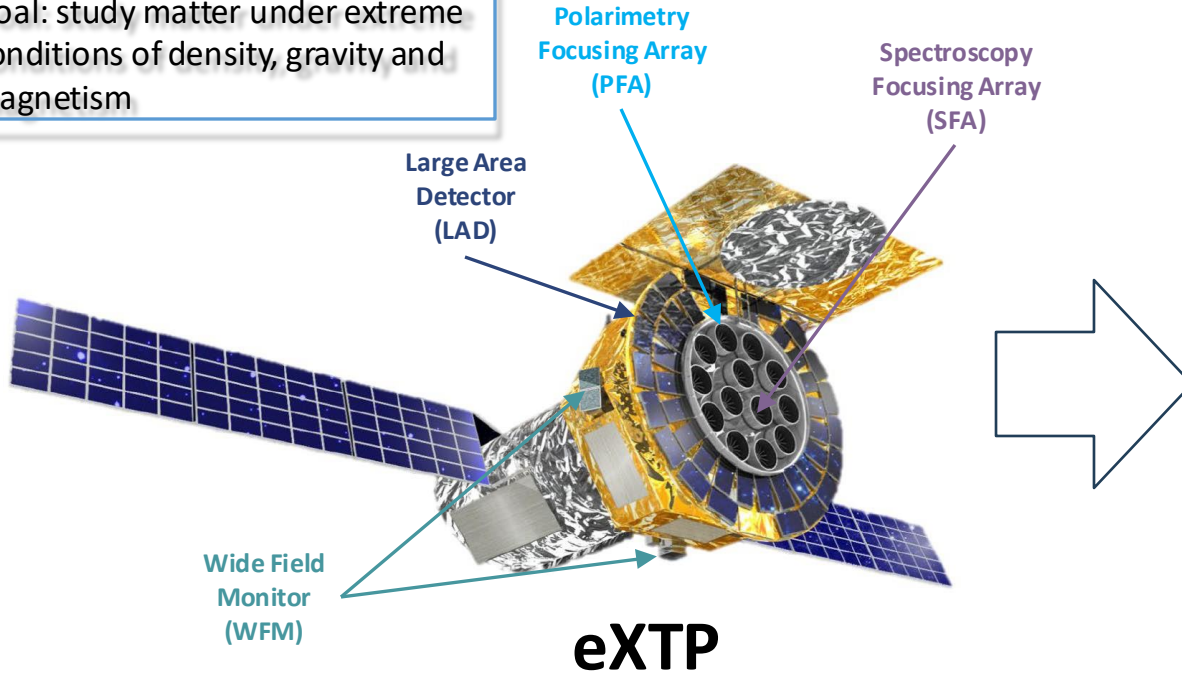
TIFPA

Trento
Institute for
Fundamental
Physics and
Applications

eXTP STROBE-X

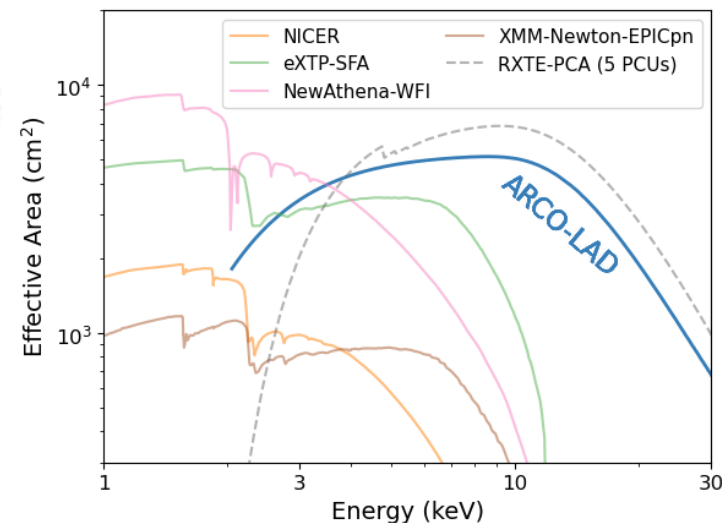
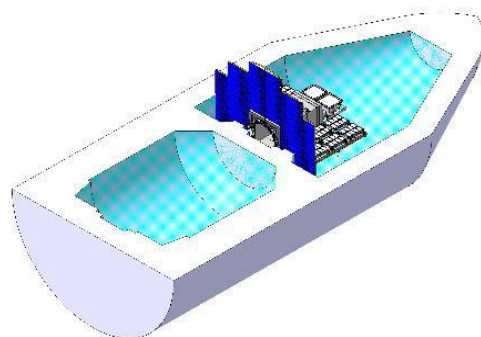
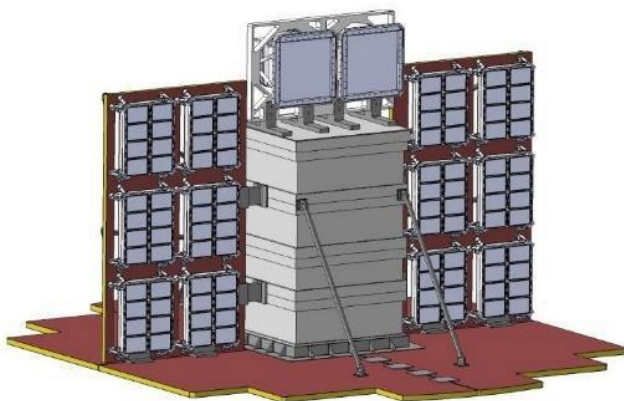
GIANLUIGI ZAMPA

Goal: study matter under extreme conditions of density, gravity and magnetism

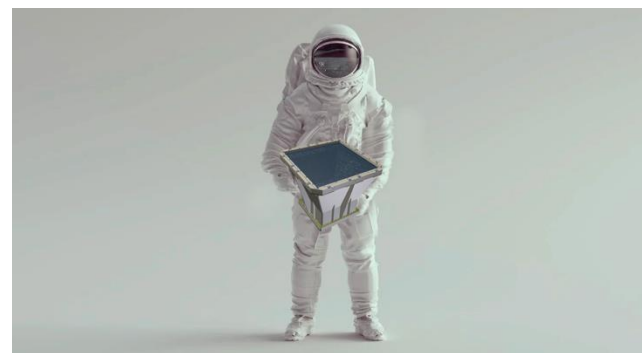
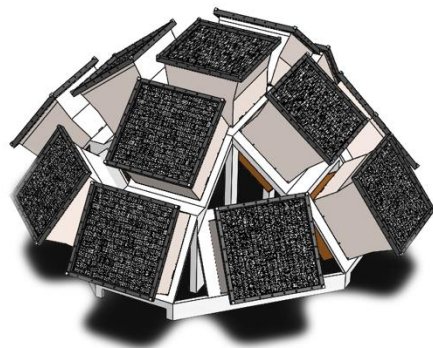
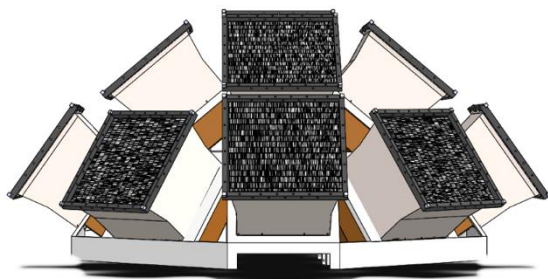


Instrument	eXTP	STROBE-X
LAD/HEMA	40 modules (640 SDDs)	40 modules (640 SDDs)
WFM	3 camera pairs (24 SDDs)	4 camera pairs (32 SDDs)
SFA/LEMA	9 telescopes, 7400 cm ² @ 2keV	60 elements, 16000 cm ² @ 2 keV
PFA/—	4 telescopes, 915 cm ² @ 2 keV	—

The ARGO proposal for the ESA F3 Fast Mission call Opportunity



LEM-X project formerly financed by PNRR (INAF-ASI), now supported by ASI with industrial study for HW development and mission study



eXTP TIFPA 2025

Missioni: 0.3 kE

DRAX (DRAX = DRift for Astrophysics in X-rays) Richeste finanziarie 2026

Missioni: Test di sensori in lab a Trieste. Solo viaggio. 2.5 kE

Riunione di collaborazione (1p x 3g) 1.0 kE

Irina Rashevskaya	Tecnologo	TIFPA	70%	RESP
Antonino Picciotto		FBK	20%	
Mateo Centis Vignali		FBK	20%	
Francesco Ficorella		FBK	20%	
Nicola Zorzi		FBK	20%	
TOTALE				1.5 FTE