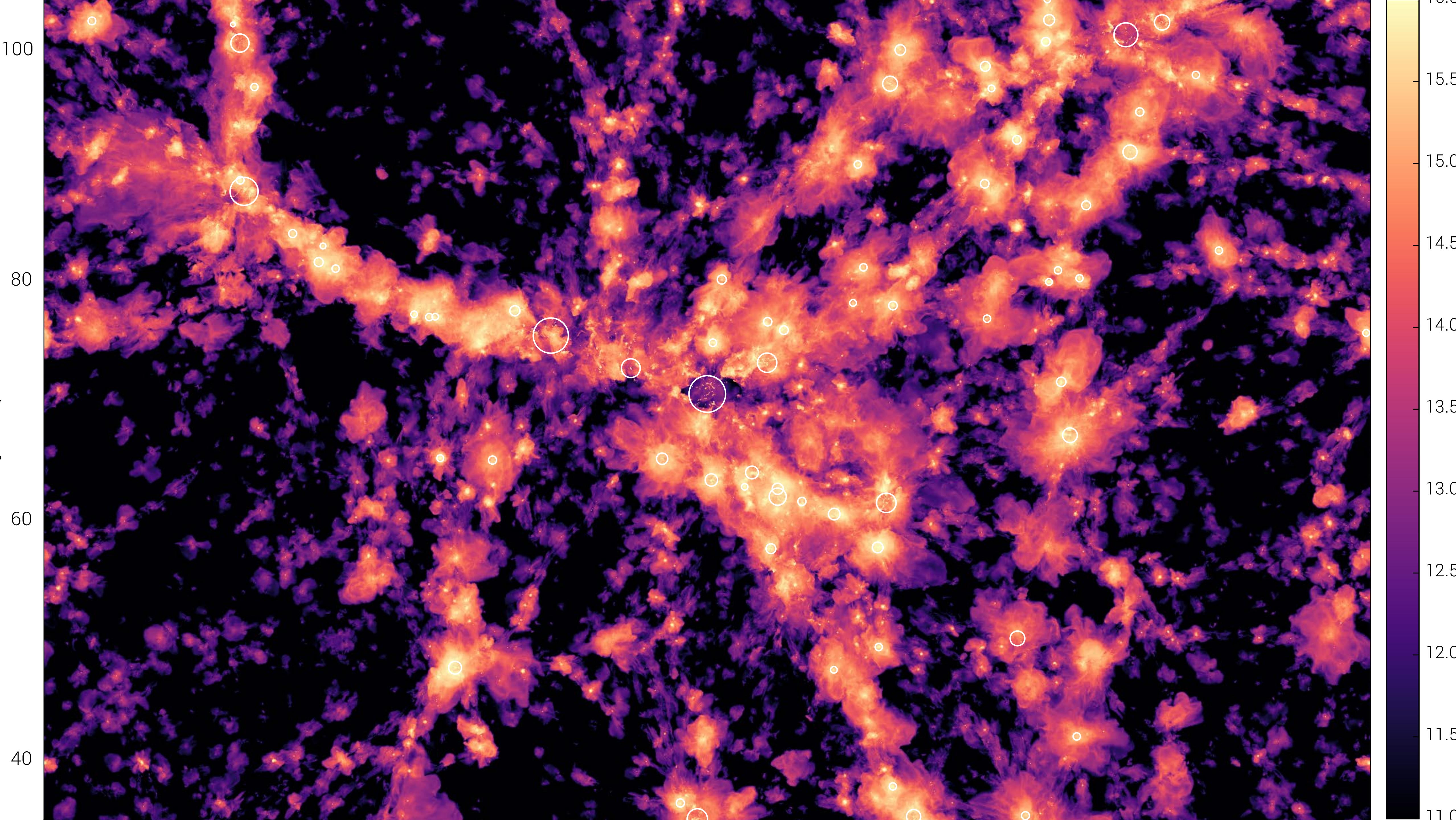


# STUDYING THE *HOT* AND *ENERGETIC UNIVERSE* AT MASARYK UNIVERSITY

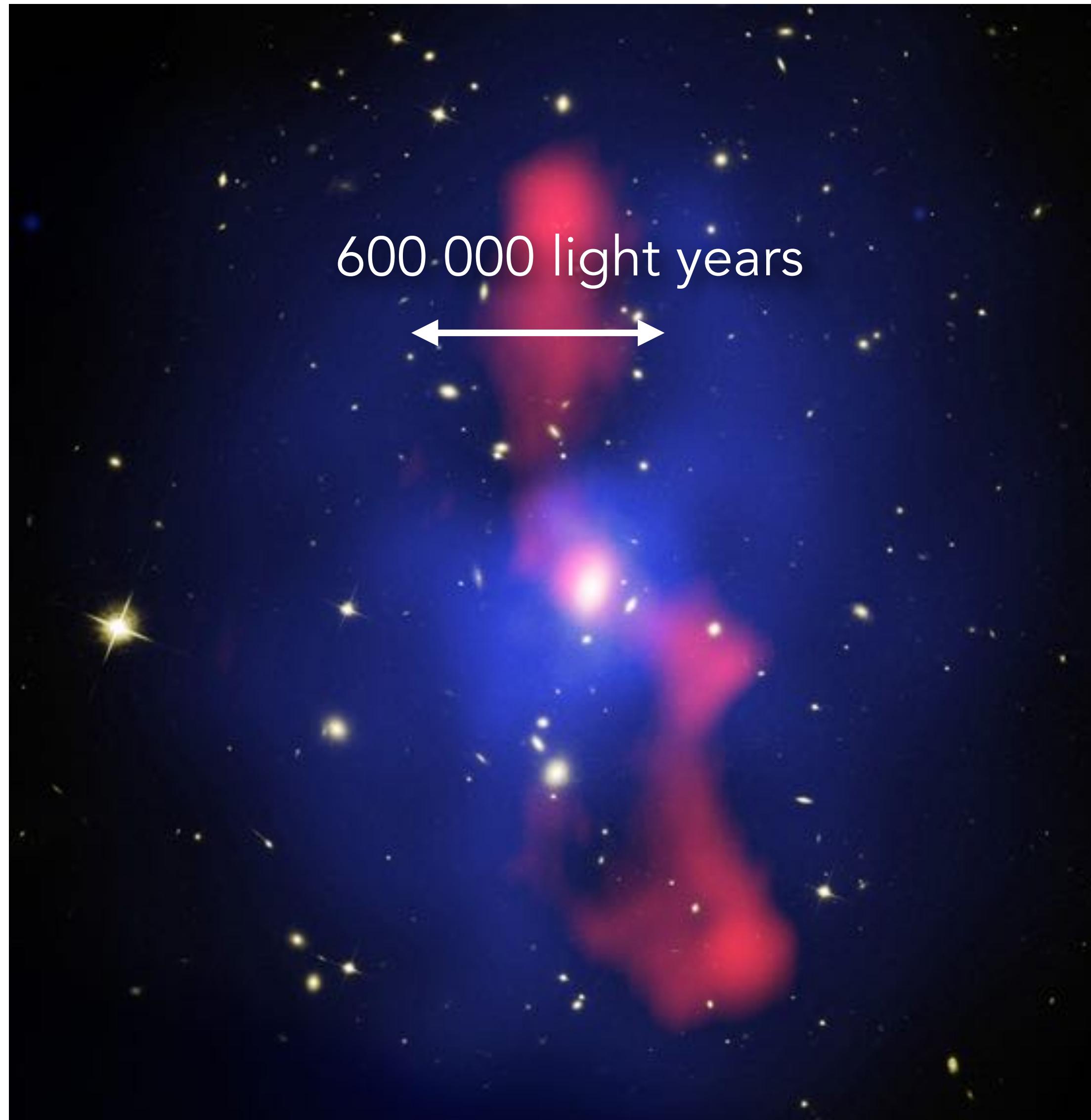


Supported by GAMU **MASH3** a GAČR **EXPRO** grants

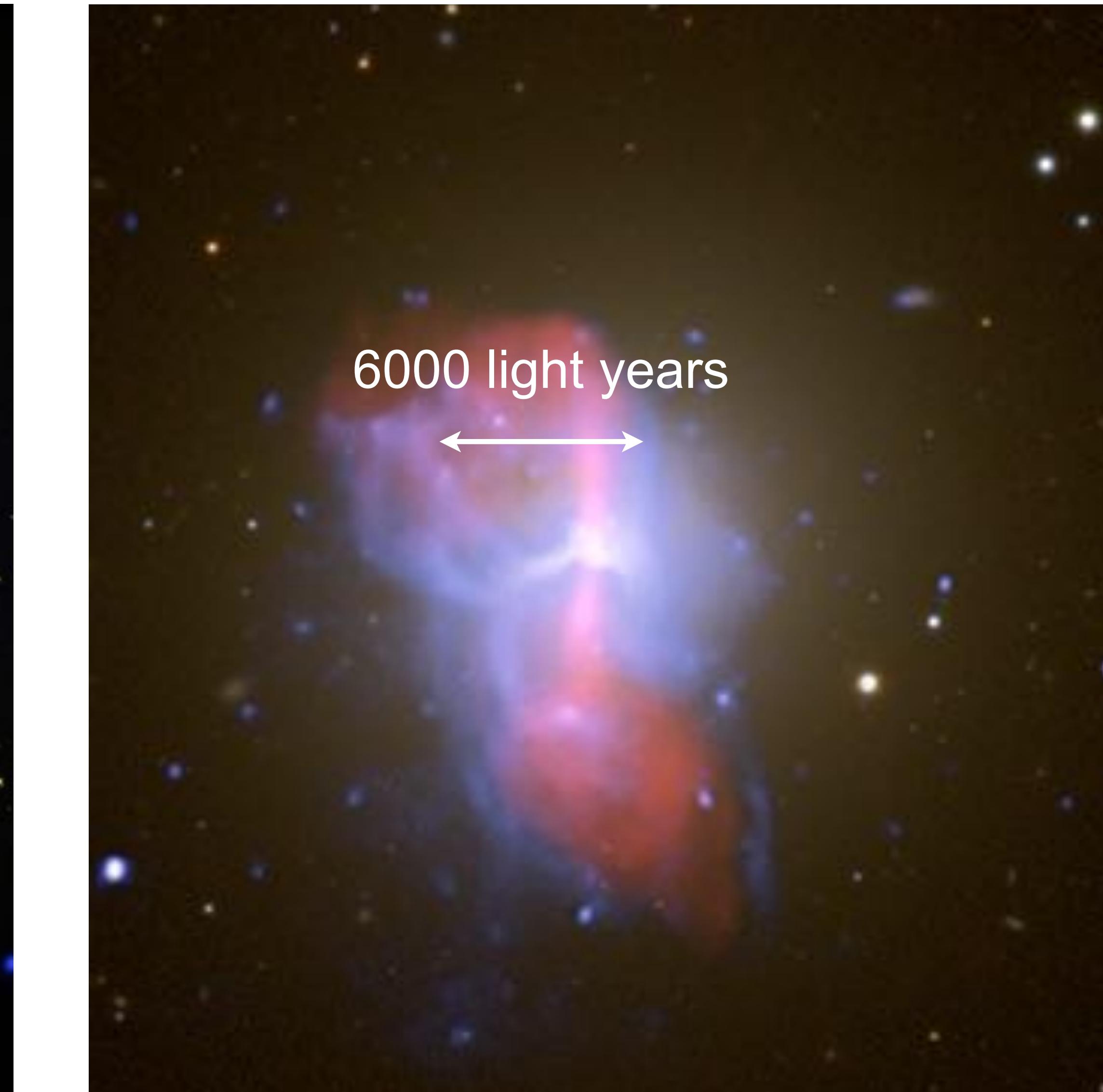




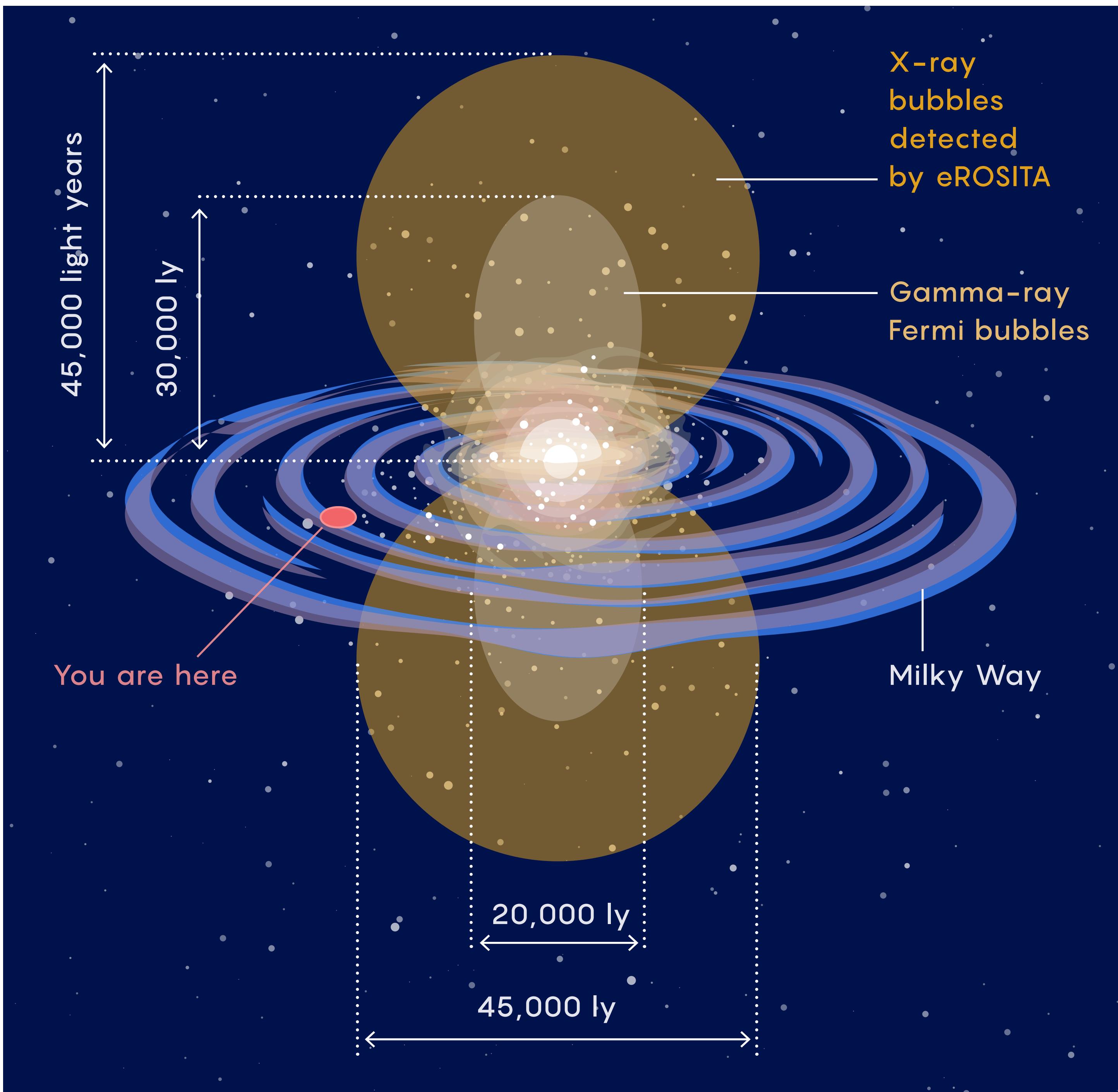
# BLACK HOLE BLOWN BUBBLES IN CLUSTERS AND IN GALAXIES



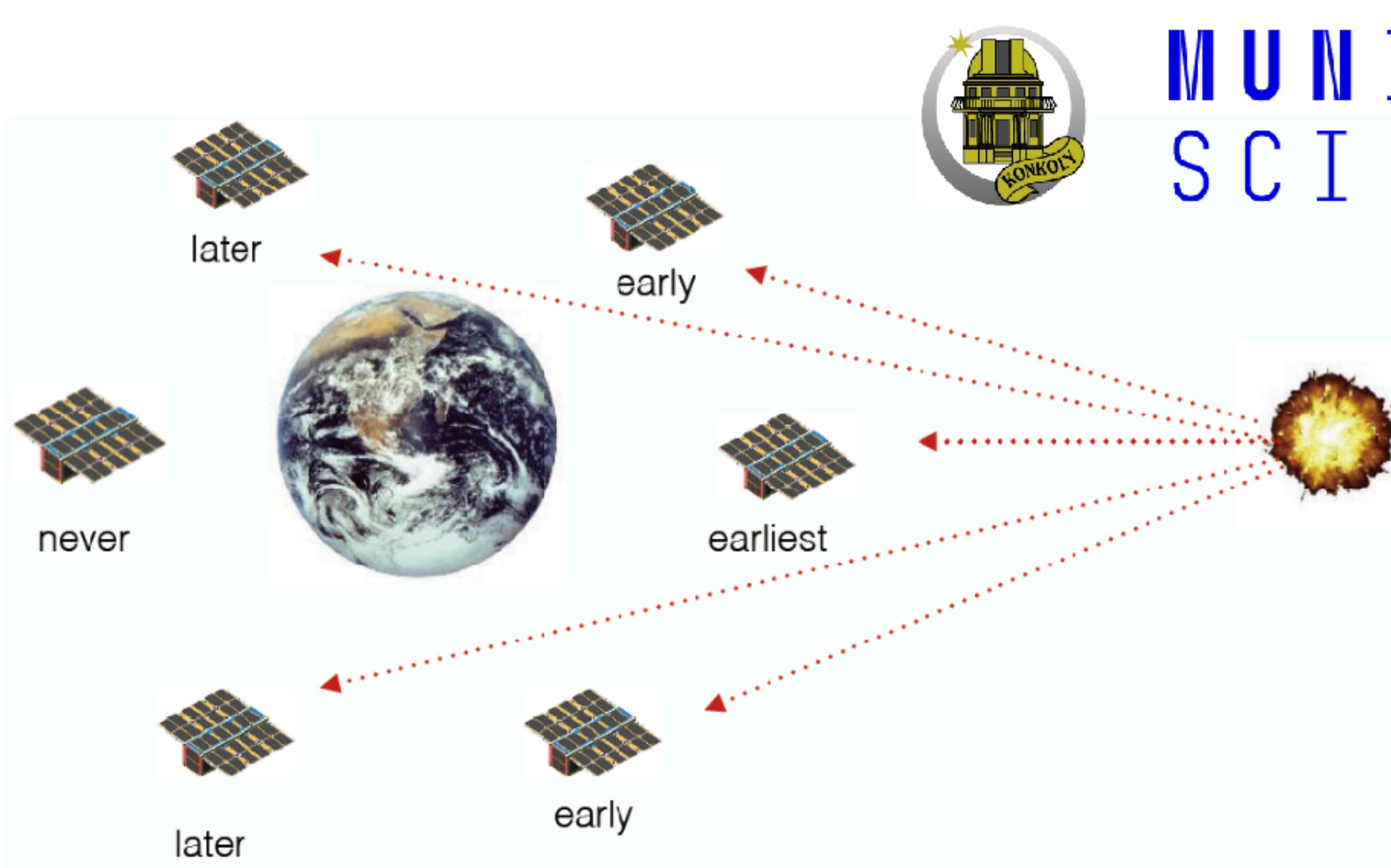
600 000 light years



6000 light years



# CAMELOT: Cubesat Array for MEasuring and LOcalising Transients



MUNI  
SCI



VZLÚ  
... partner průmyslu

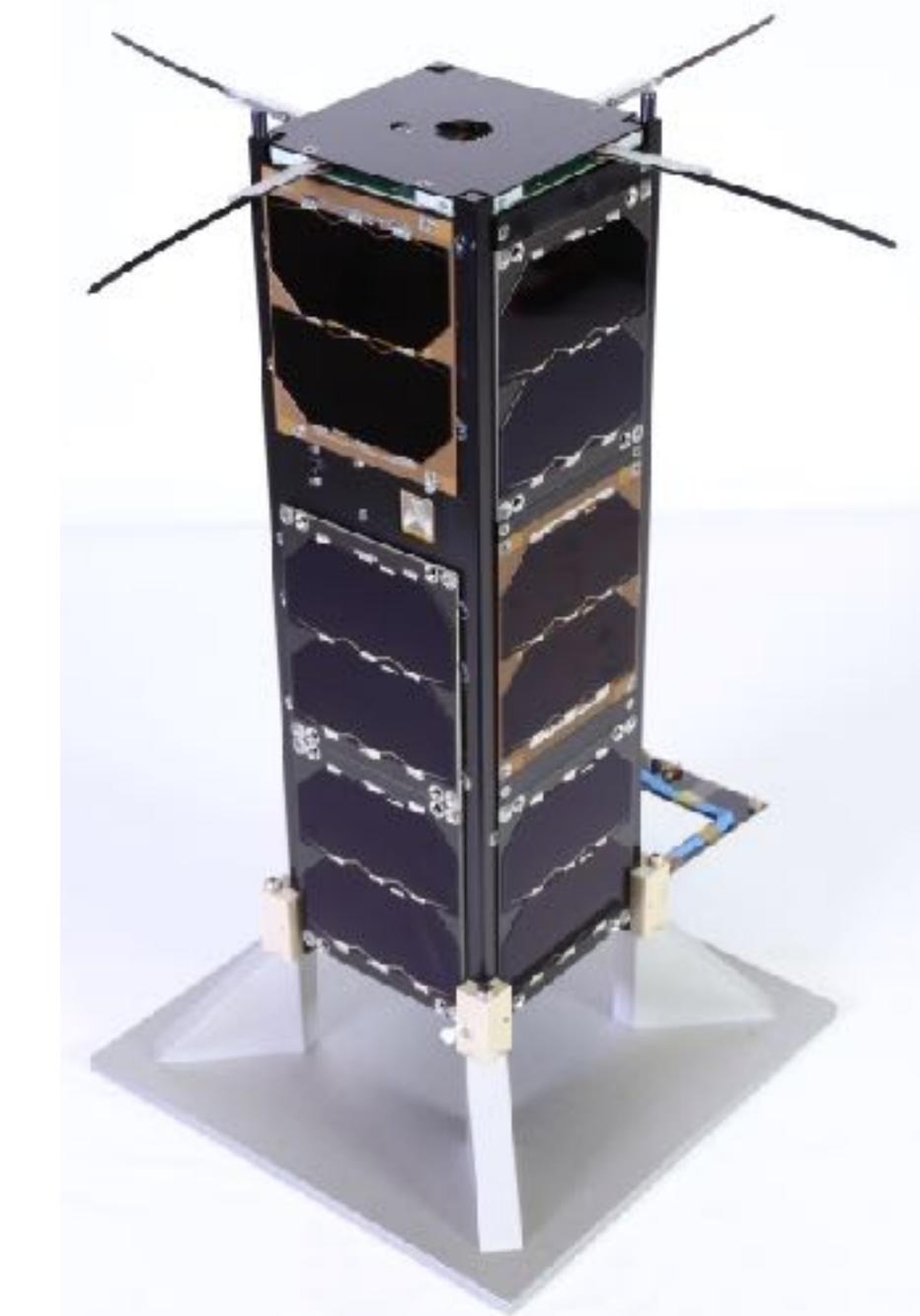
The fleet of 9 (18) satellites will provide a sensitive all sky coverage with a localisation accuracy of  $\sim 1 \text{ deg}^2$

1. Tech demo with GRBAlpha, VZLUSAT-2, GRBBeta
2. Prototype of the CAMELOT satellite
3. Full constellation



**GRBAlpha**

Launched: 22. 3. 2021



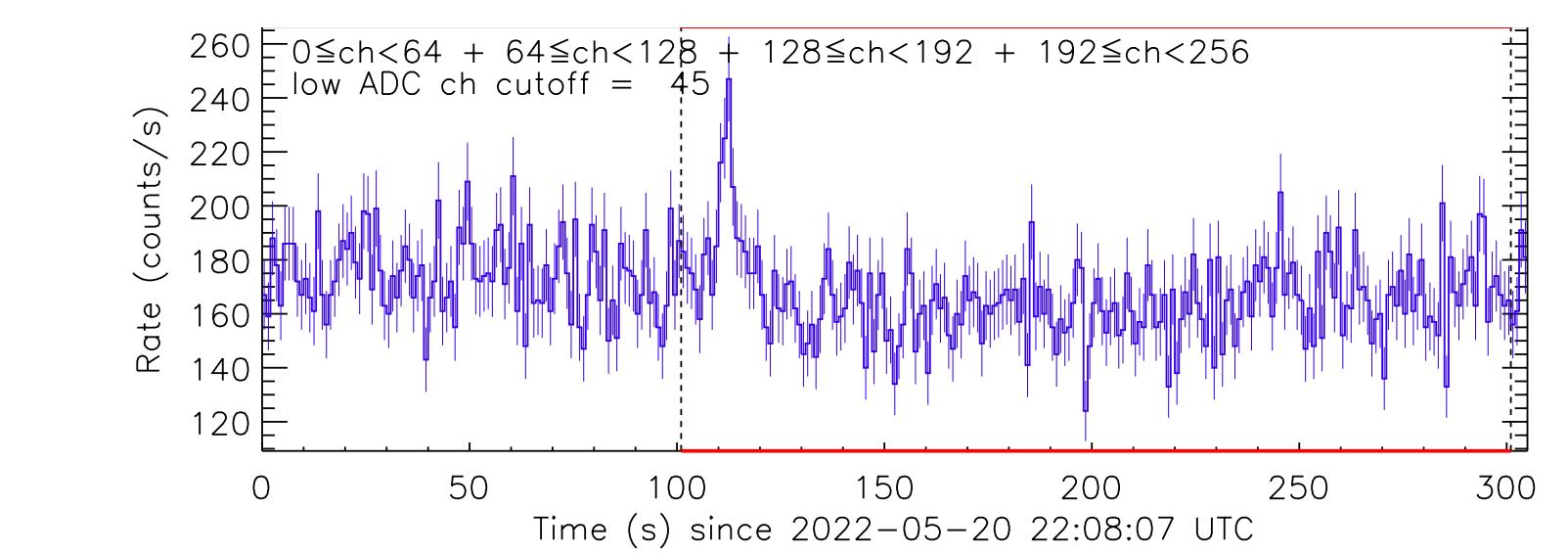
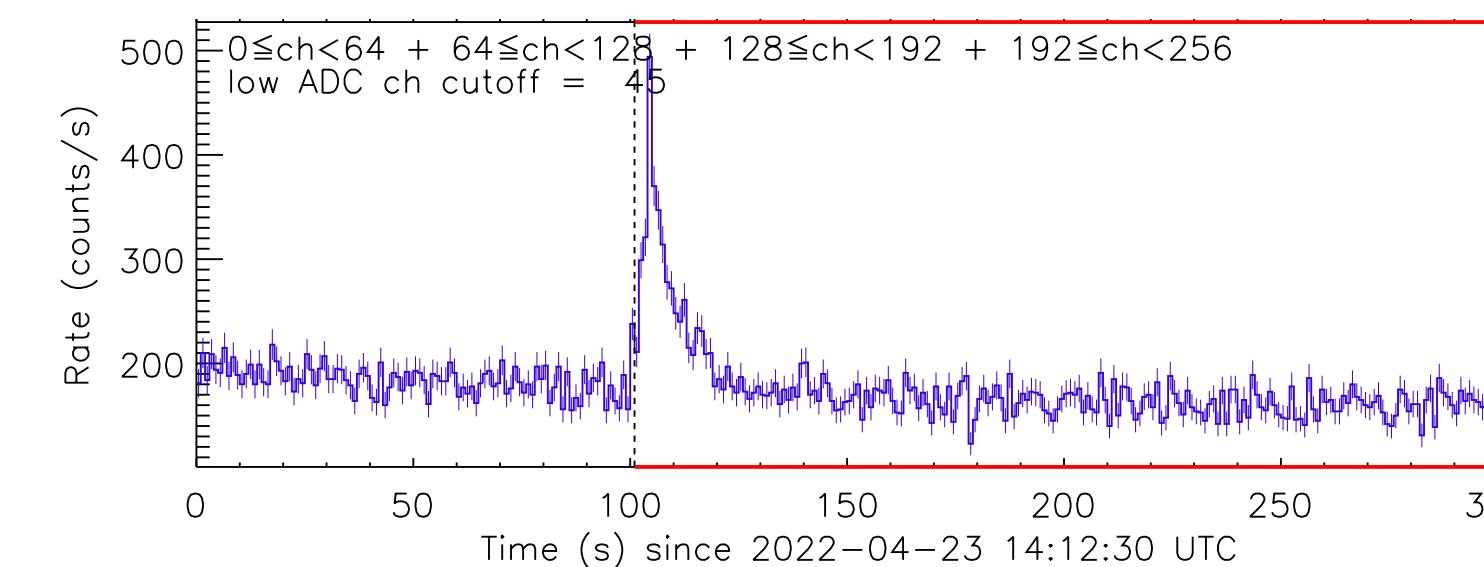
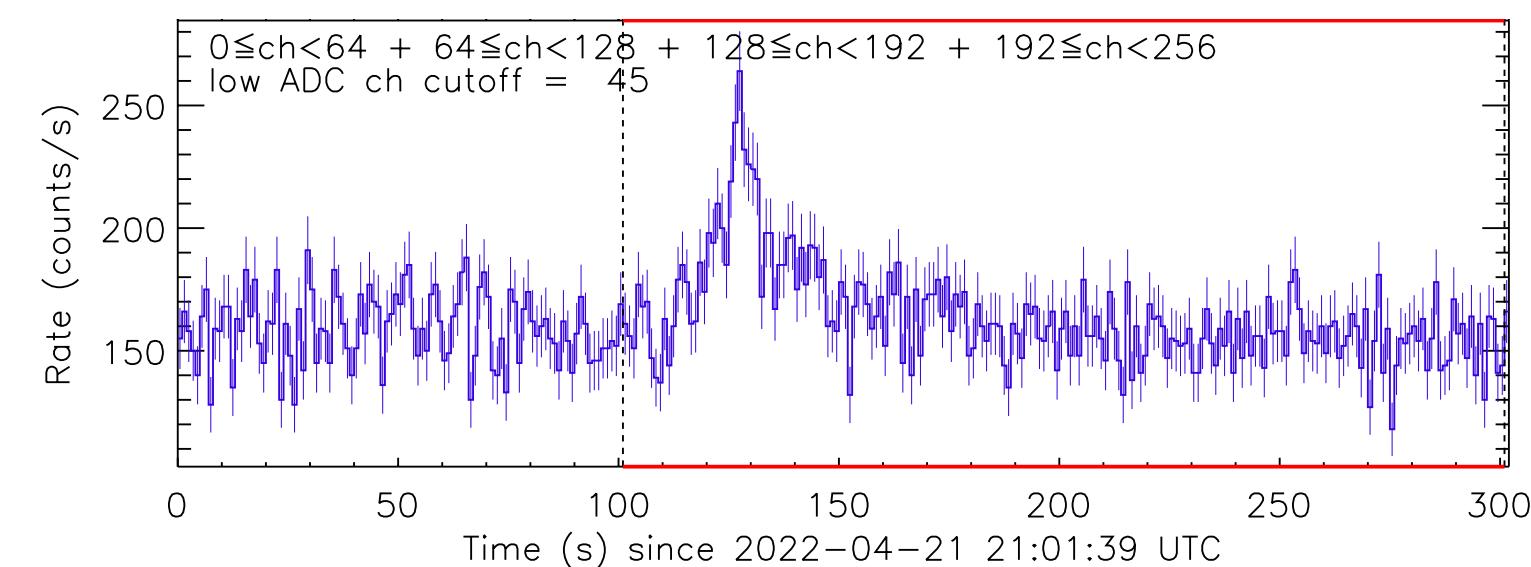
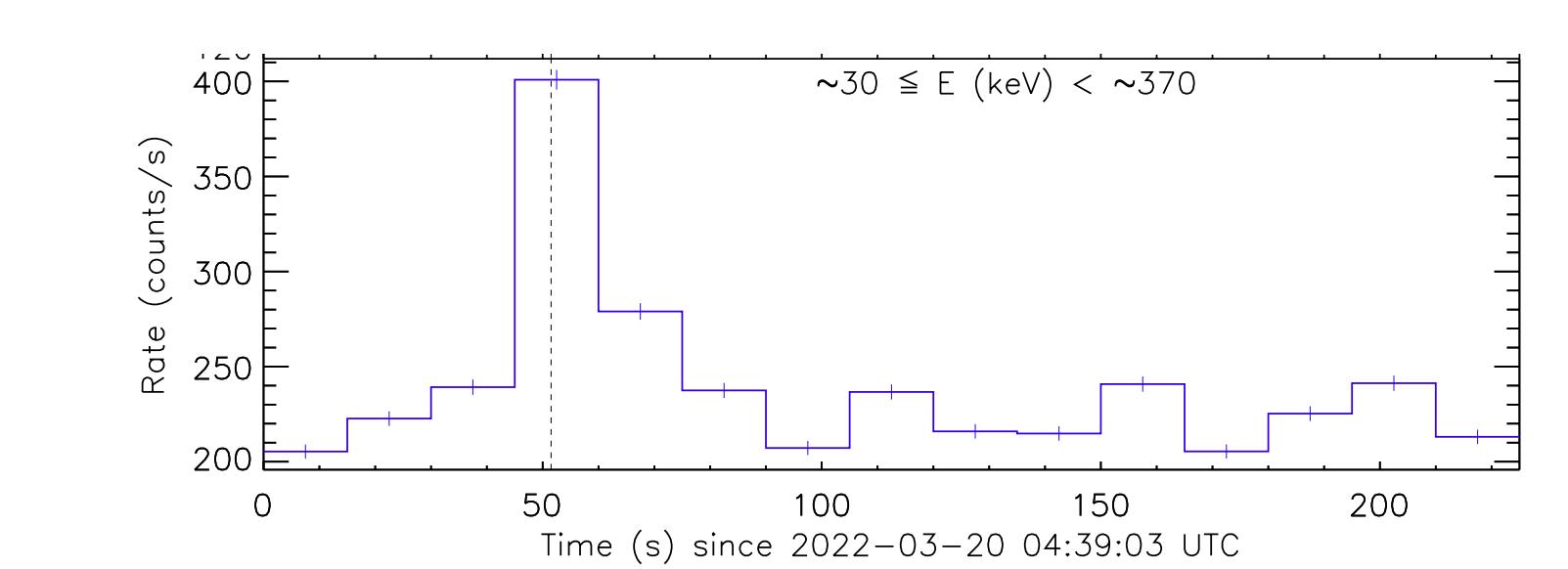
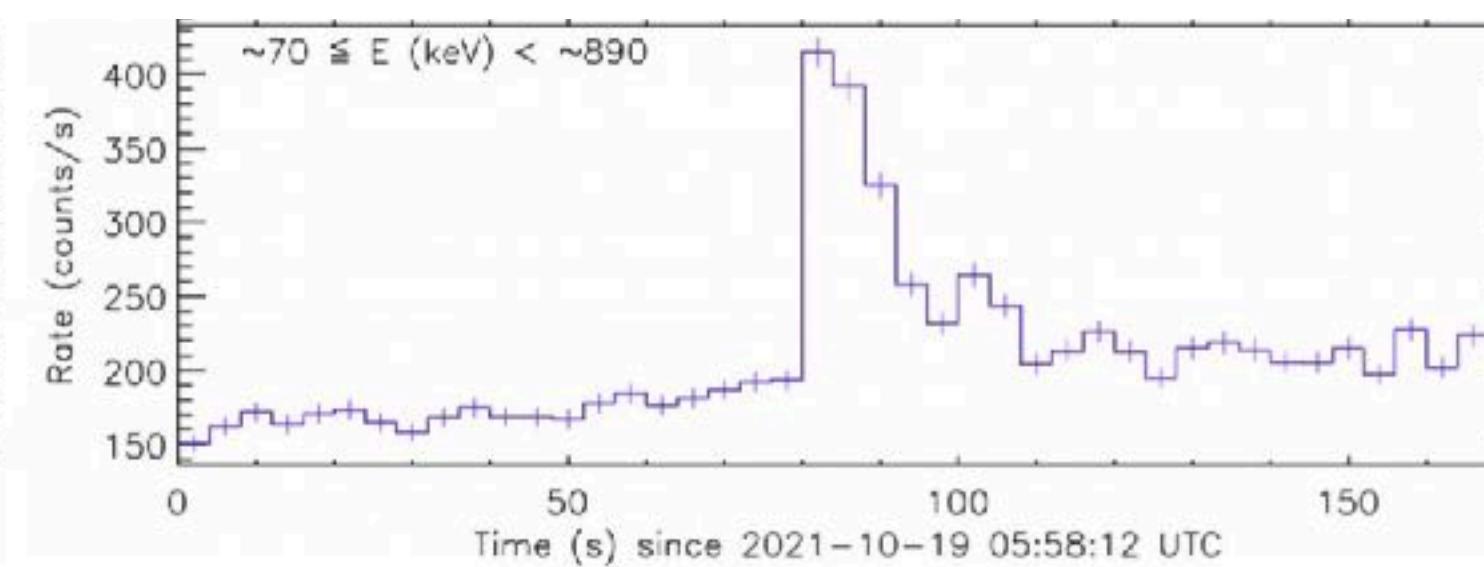
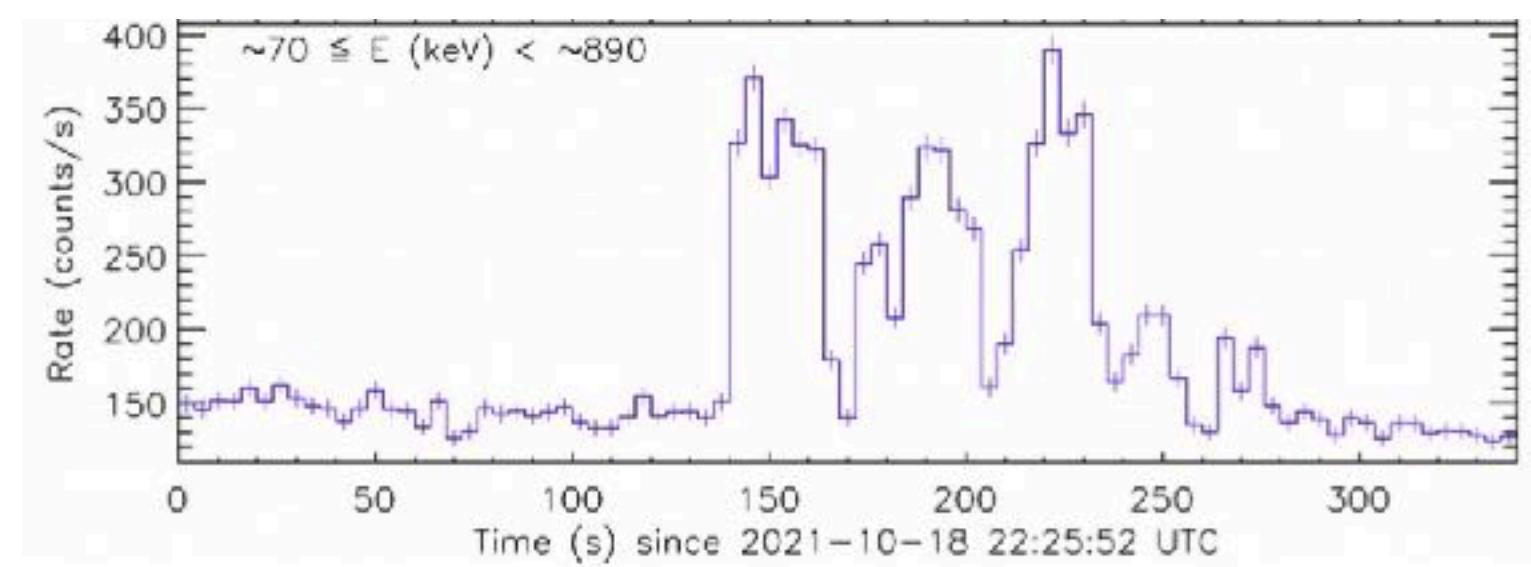
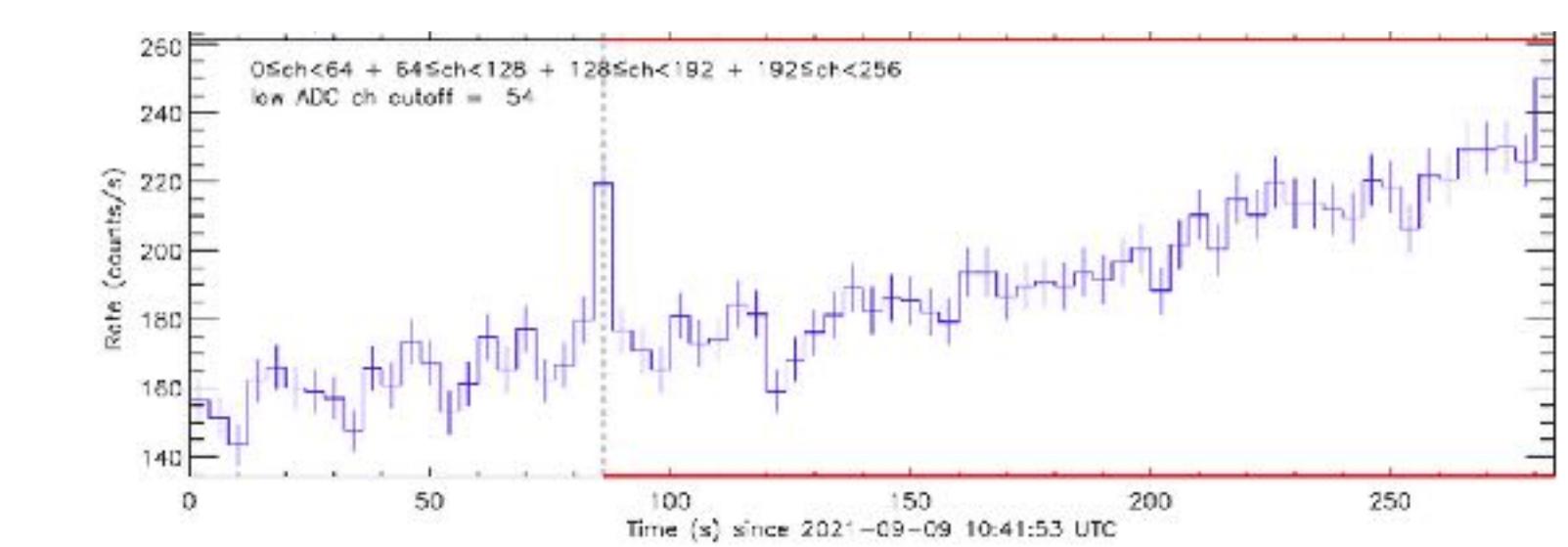
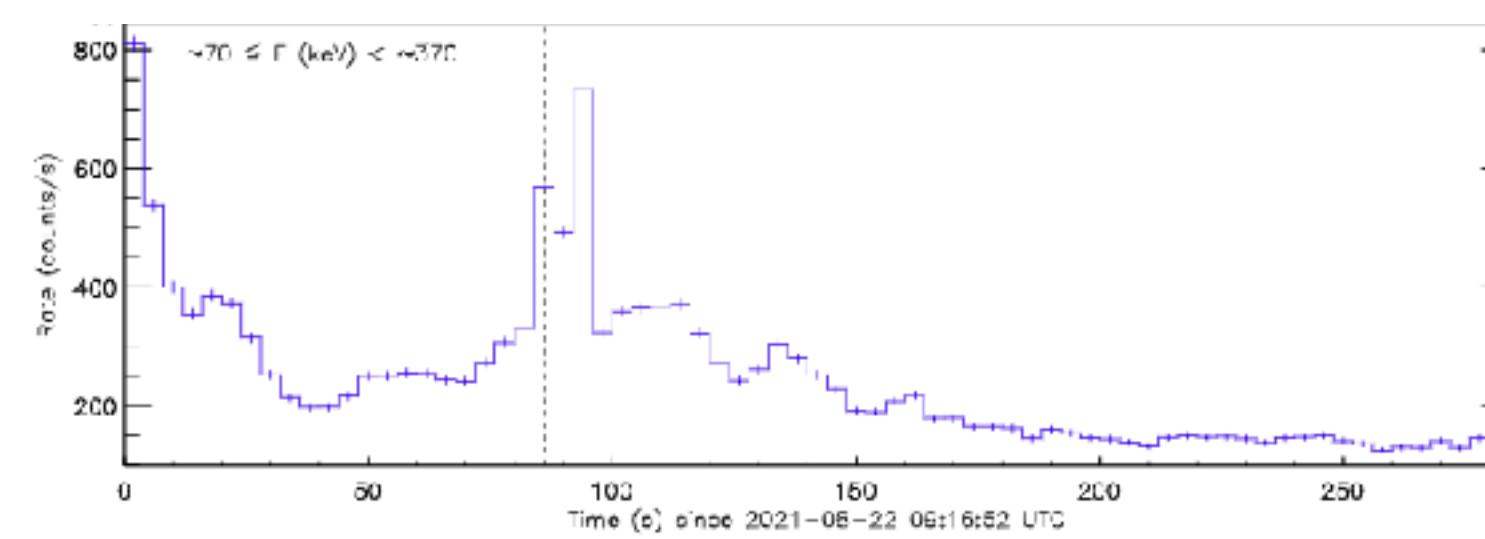
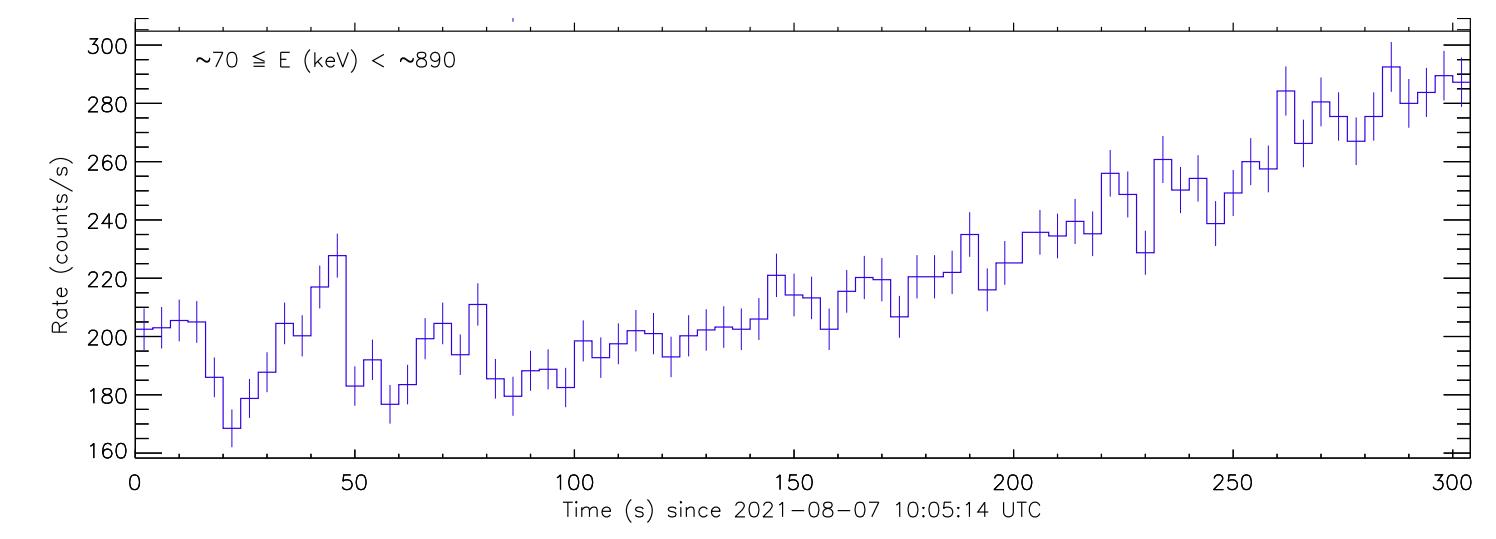
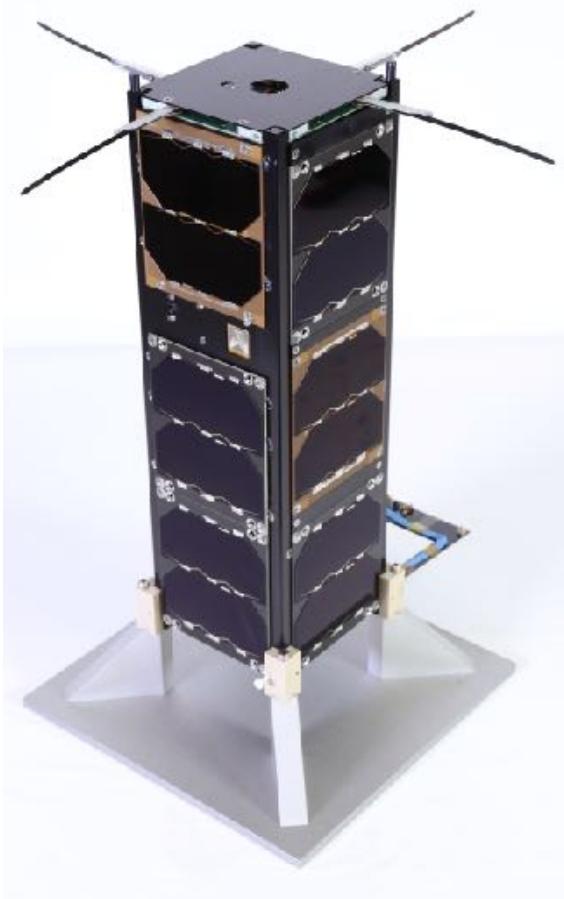
**VZLUSAT-2**

Deployed on: 26. 1. 2022

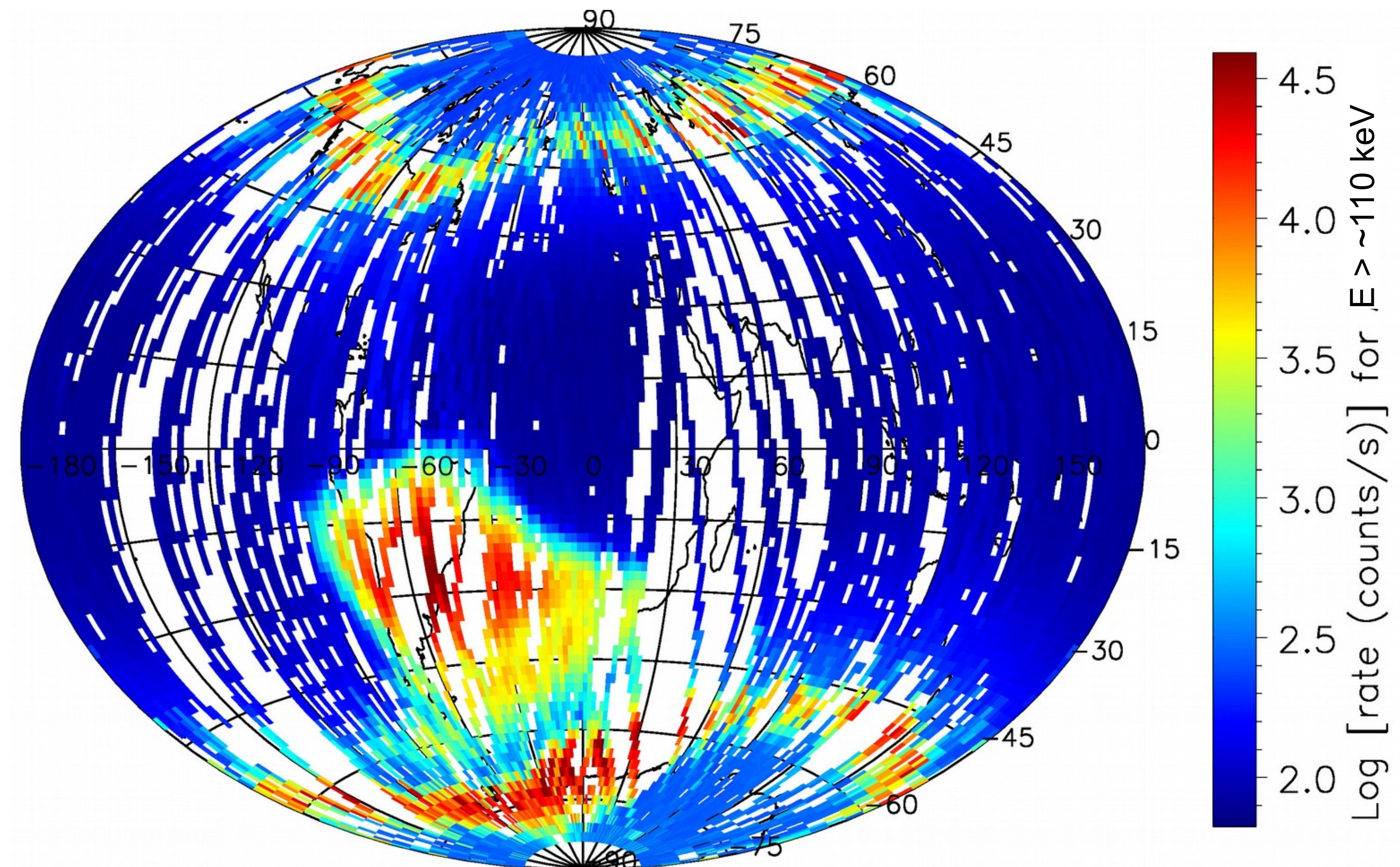


# ***GRBAlpha & VZLUSAT-2***

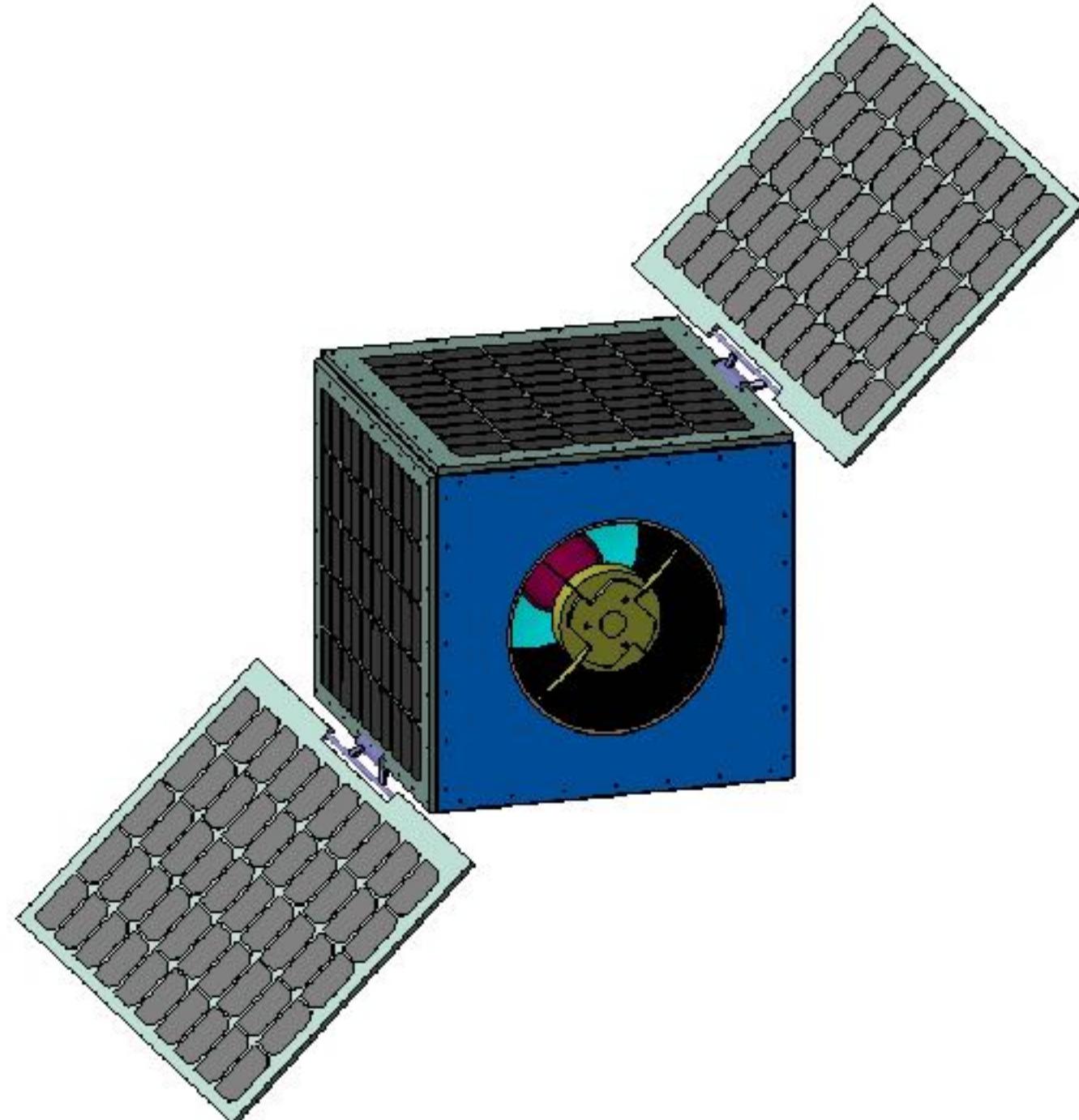
## A SUCCESSFUL IN-ORBIT DEMONSTRATIONS



# Map of energetic particles



# **QUVIK**: Quick Ultra Violet Kilonova surveyor



- **UV Space Telescope** with a collecting area of at least  $200 \text{ cm}^2$ .  
Its primary objective is photometry of kilonovae detected by gravitational wave observatories out to 200 Mpc
- The satellite will have a fast repointing capability
- Many secondary science objectives (AGN, TDEs, exoplanets, GRB afterglows, hot stars, etc.)
- On a micro-satellite platform by VZLU
- MUNI is responsible for science (Science PI)