

# The COLIBRI telescope in the era of Multi-Messenger Astronomy



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# What's COLIBRÍ?

Collaboration: France + Mexico

Place: Observatorio Nacional Astronomico San Pedro Mártir (OAN, 2830 m), Baja California, México

Mode: robotic (pin-pointing in <30 s)

Aperture: 1.3 m (FOV = 21x21 arcmin<sup>2</sup>)

Cameras: 2 visible (DDRAGO), 1 NIR (CAGIRE)

Filters: gri + zy + JH

R\_AB limiting magnitude: 22.0

Photometric redshift: 3.5-7.5

Status: installed (end: 22nd of June, 2024)



Observatorio Nacional Astronomico San Pedro Mártir (OAN), Baja California, México



Some images collected during the installation of the telescope at OAN

# Messier 16

@COLIBRÍ

Test camera  
Exposure: 30 s  
No tuning.



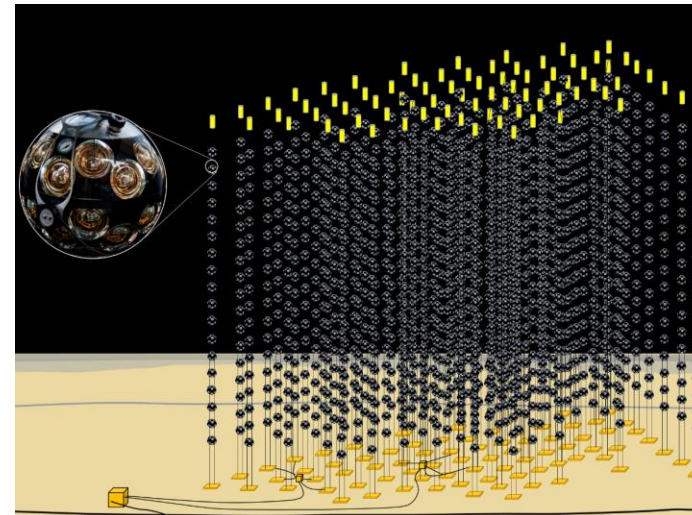


# COLIBRÍ follow-ups

SVOM mission: furthest GRBs

- Satellite:
  - On-board instruments:
    - ECLAIRs telescope: 4-250 keV
    - MXT (Microchannel X-ray Telescope): 0.2-10 keV
    - GRM (Gamma-Ray bursts Monitor): 15-5000 keV
    - VT (Visible Telescope): visible + dark bursts
  - Inclination: 30 deg
  - Altitude: 625 km
  - Orbital period: 96 min
- Ground Follow-up Telescopes (<5 min): F-GFT (COLIBRI), C-GFT (NAOC at Xinglong Observatory, China)
- GWAC (Ground-based Wide Angle Camera): Xinglong Observatory (Beijing), Muztagh Ata Observatory (Western China)

KM3NeT (Jean's presentation), IceCube, LVK, LSST...



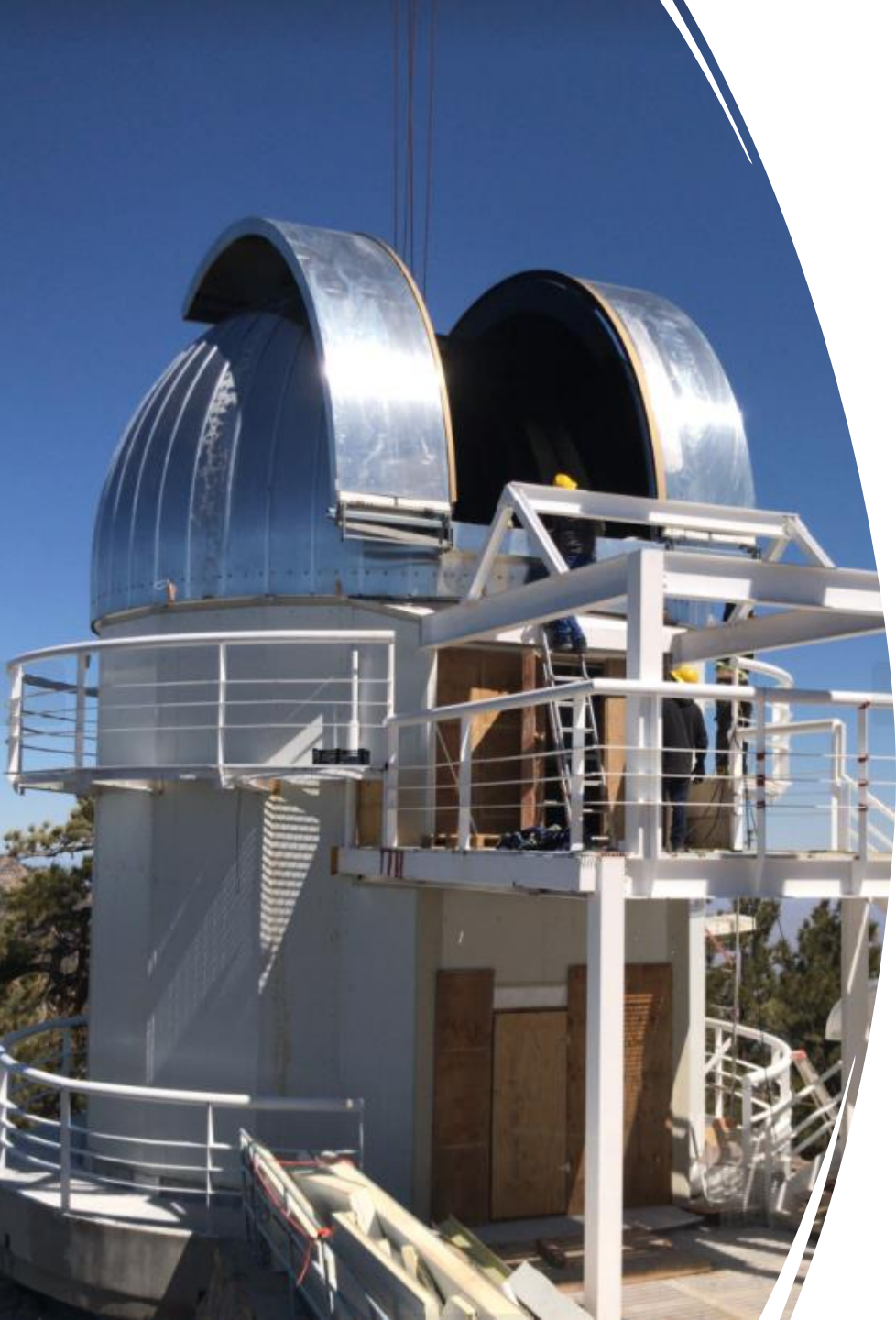
# COLIBRÍ time policy

COLIBRÍ will perform its own analysis through a dedicated pipeline

- Undergoing testing and setup of the pipeline: Jean, me, Ny-Avo, Dhalia A., Damien D, Sarah A., Stephan B, Francis F.

COLIBRÍ time allocation policy: (MoU (2018) and <<agreement between the PI of SVOM, the PI of COLIBRI, and the deputy-PI of COLIBRI>> (2022))

- 10% to the host observatory (OAN)
- 45% reserved to SVOM (SVOM GRBs + SVOM general program for follow-ups)
- 45% to the French and Mexican scientific communities (equally divided)



**THANK YOU!**

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