# Stargate: Gamma-ray burst follow-up at the VLT

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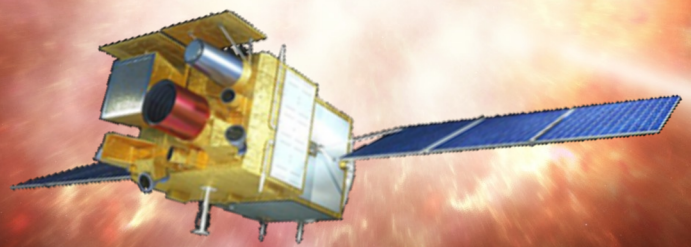
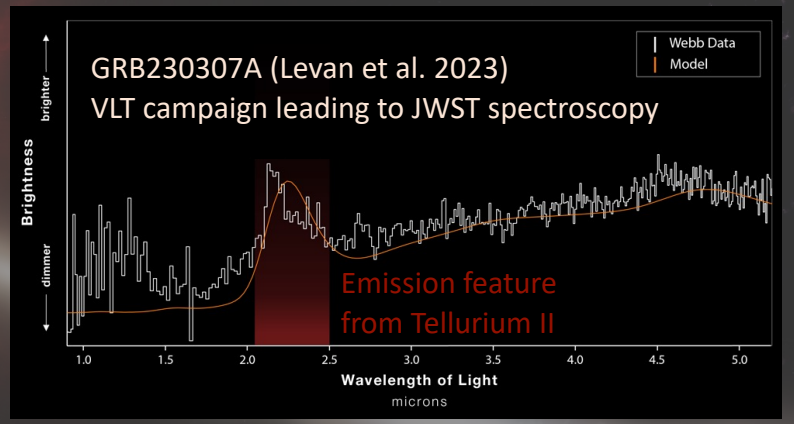
**Stargate** is the confluence of several Europen groups researching gamma-ray bursts using the VLT (and more). Open collaboration, > 100 people.



## GRBs from binary compact object mergers.

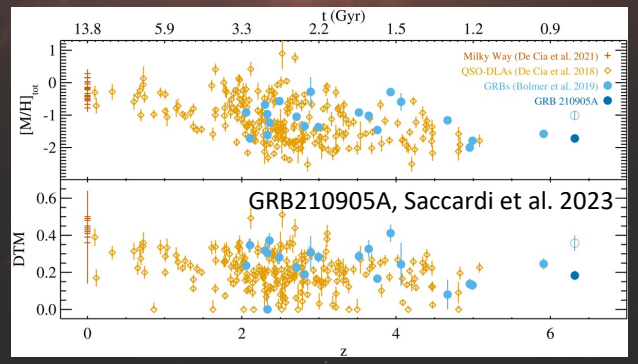
Short GRBs originate in mergers, and pinpoint gravitational wave sources, complementing GW detectors. Their remnants glow as ”kilonovae”, the likely production site of heavy elements in the cosmos.




## Probing the high-redshift universe.

GRB counterparts are bright and allow accurate absorption spectroscopy to measure gas, metals, molecules, and dust properties in high-redshift star-forming galaxies. Especially neutral gas is very hard to probe in any other way.

## Metals/dust evolution with redshift




## The future...

...is bright. The SVOM satellite (June launch) is optimized for high-redshift events and ground-based follow-up. We expect to increase the number of well-studied high-redshift events in the next few years.