Core program: Science Products Database

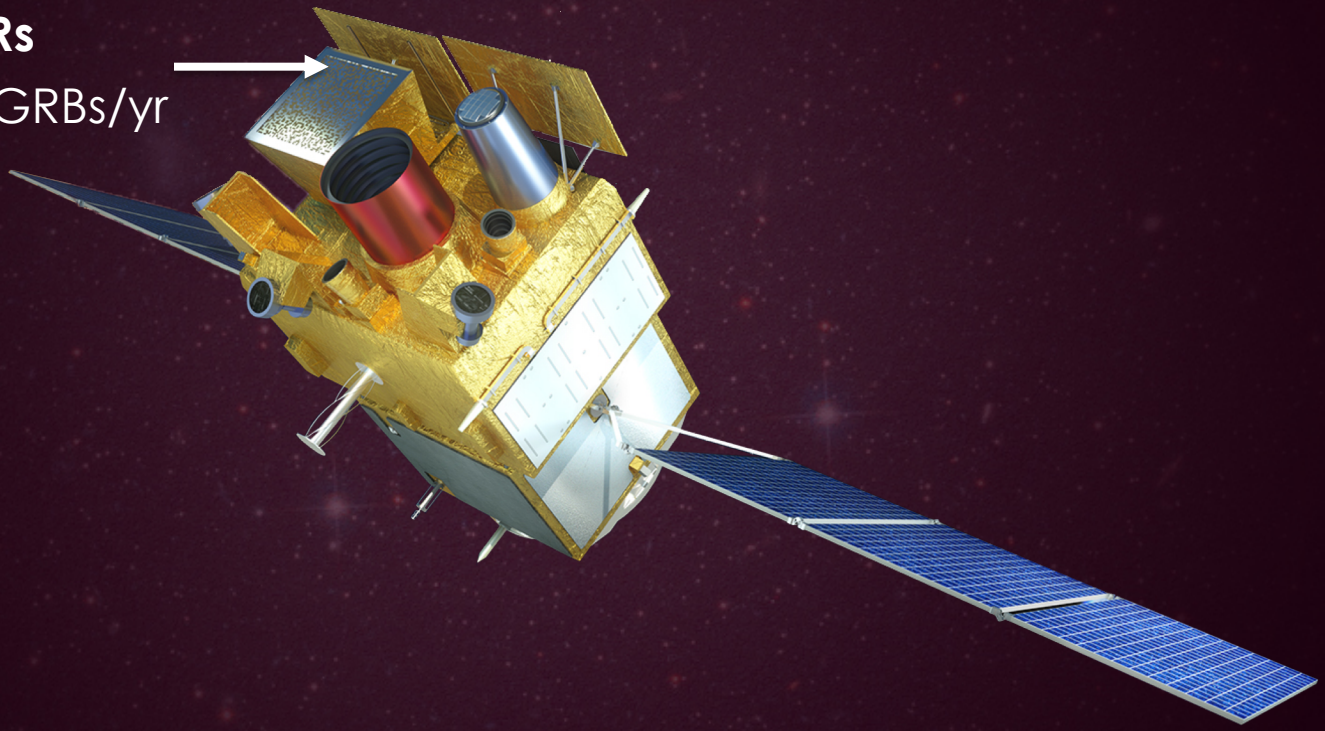
F. Daigne & L. Domisse (IAP)

The SVOM GRB sample

GRB trigger

ECLAIRs

42-80 GRBs/yr

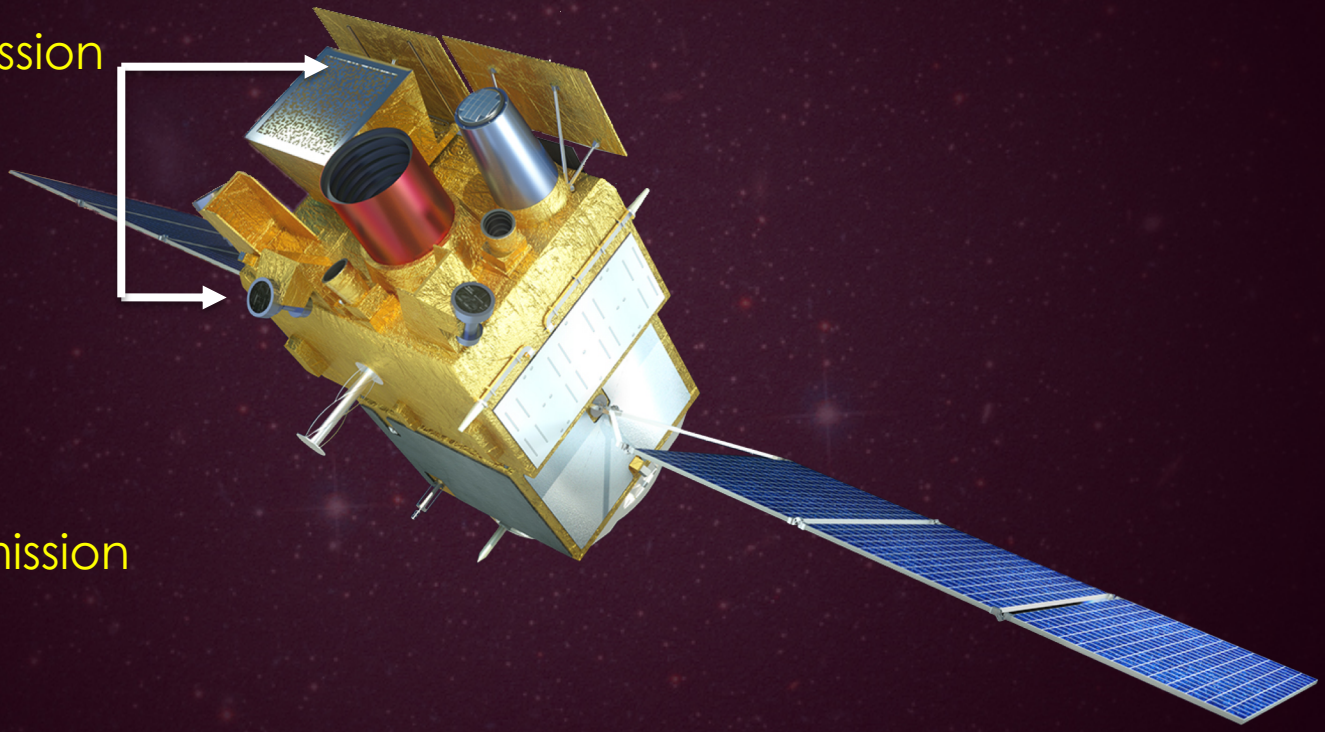


The SVOM GRB sample

Prompt emission

ECLAIRs+GRM

Prompt GRB emission
over 3 decades
(4 keV-5.5 MeV)



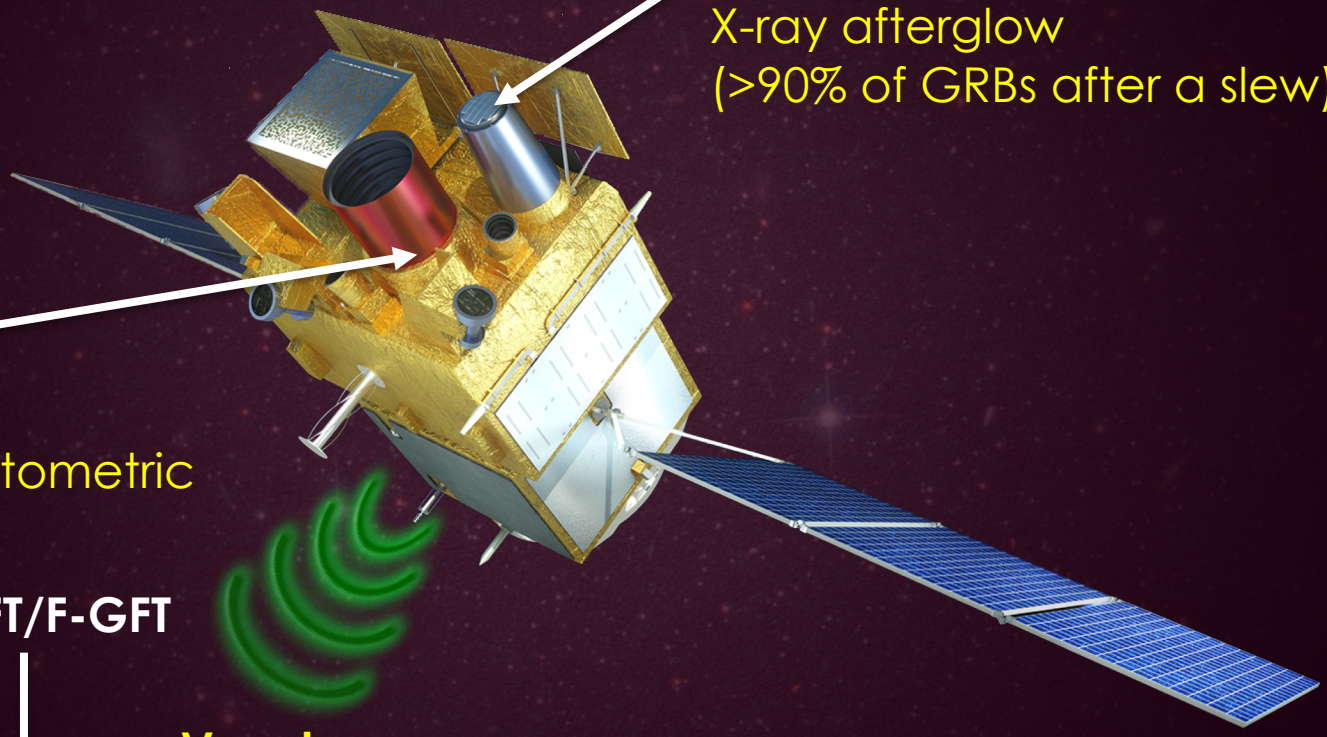
GWAC

prompt visible emission
in ~16% of cases

The SVOM GRB sample

Afterglow & distance

slew request: 36-72 GRB/yr



MXT

X-ray afterglow
(>90% of GRBs after a slew)

VT

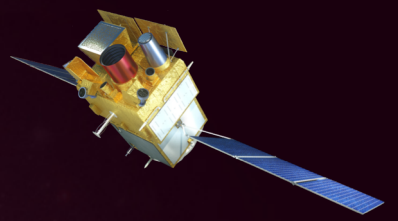
Visible and NIR
afterglow+photometric
redshift

GWAC **C-GFT/F-GFT**

Very large telescopes

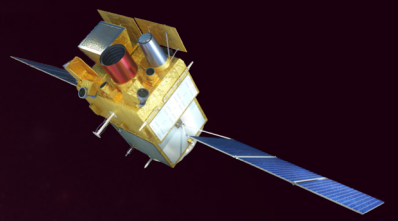
Redshift in ~2/3 of cases

Science products



- The core program science (GRB physics, GRB as a tool for cosmology) requires the generation of many science products (SP).
- Ideal case = a GRB observed by all SVOM instruments + redshift measurement: ~100 SP are generated
- Basic SP: positions, light curves, spectra
- High level SP: several indicators useful to study GRB physics or use GRBs for cosmology
- Part of these SP will be rapidly transmitted to the whole GRB community in the world.

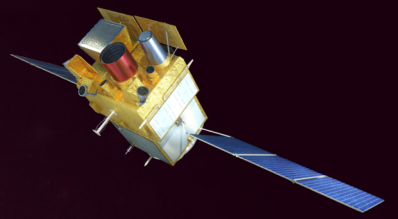
Science products: documentation



- Documentation: SR3
- SR3 appendix 1: excel table listing all SP
  Not up to date anymore, to be suppressed
- SR3 appendix 2: a card per SP with a detailed description

  = result of a collaborative work between all labs involved in the core program (including IHEP and NAOC)
- Associated database: **today presentation**
- **Demo: now**

Access to the database

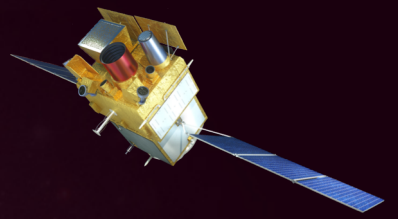


- svom.iap.fr/fiches

- Login+pwd = one per lab = allows to read and modify the cards.

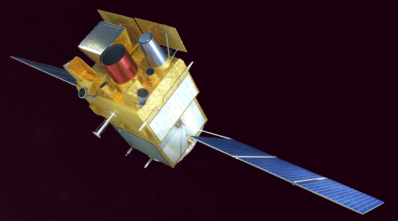
  NAOC & IHEP: will be transmitted mid-April by L. Domisse & F. Daigne

Database



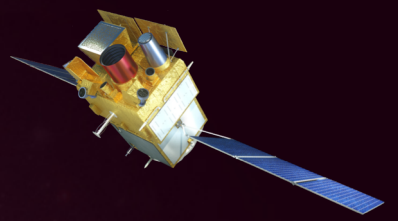
- The reference for core program SP is now this web database
- Please don't spread the password all over the world !

Next steps



- **Content :**
  1. **the content of some cards needs to be improved**
     - IHEP: one card is missing: PO_GRM
       a version 2 of some cards is needed: QPO_GRM, QSP_GRM
       (see comments in the cards & discussion tomorrow)
     - NAOC: a version 2 of some cards is needed
       (see comments in the cards)
  2. **some fields in the cards need to be improved (homogeneity, …)**
     - For instance: format (real, double, float, real*8, …)
     - It will be done by FD+LD (+ contact with labs when necessary)
- **Analysis :**
  1. **some tools to develop** (LD) : e.g. inter-dependance between SP
  2. **several analyses to be done: notices, time sequence, … (all)**

Next steps



This SP database

- can be used to identify common modules for several pipelines
- can be used to prepare the *software requirement specifications* (SRS)
- can be used to prepare the tools needed to generate the notices
- …

Questions? Discussion