

SVOM alert Practical work

IRiS is observing tonight (maybe....), be ready !



Observations hier.....

Damien Turpin (CEA), Henri Louvin (CEA) & Stéphane Basa (LAM)

with the Collaboration of
Chrystel Moreau (LAM) for the iFSC-tools



SVOM workshop @OHP
April, 7th 2022



The SVOM/IRiS working environment

Follow-up loop : receive alerts / Observe them / Perform analysis of the images / Search for transients / produce sci. products



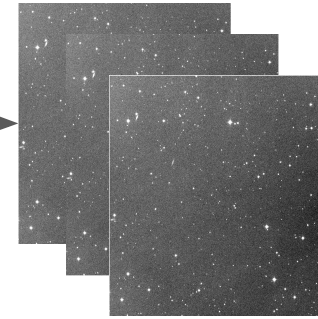
**French Science Center
contact: H. Louvin**

FSC broker
sends alert (VOE)



**The IRiS telescope system
contact: S. Basa**

follow_up obs
of svom sb21XXXX burst
alert



**The SVOM/IRiS image repo
contact: S. Basa & IRiS team**

Communication tools

To debrief

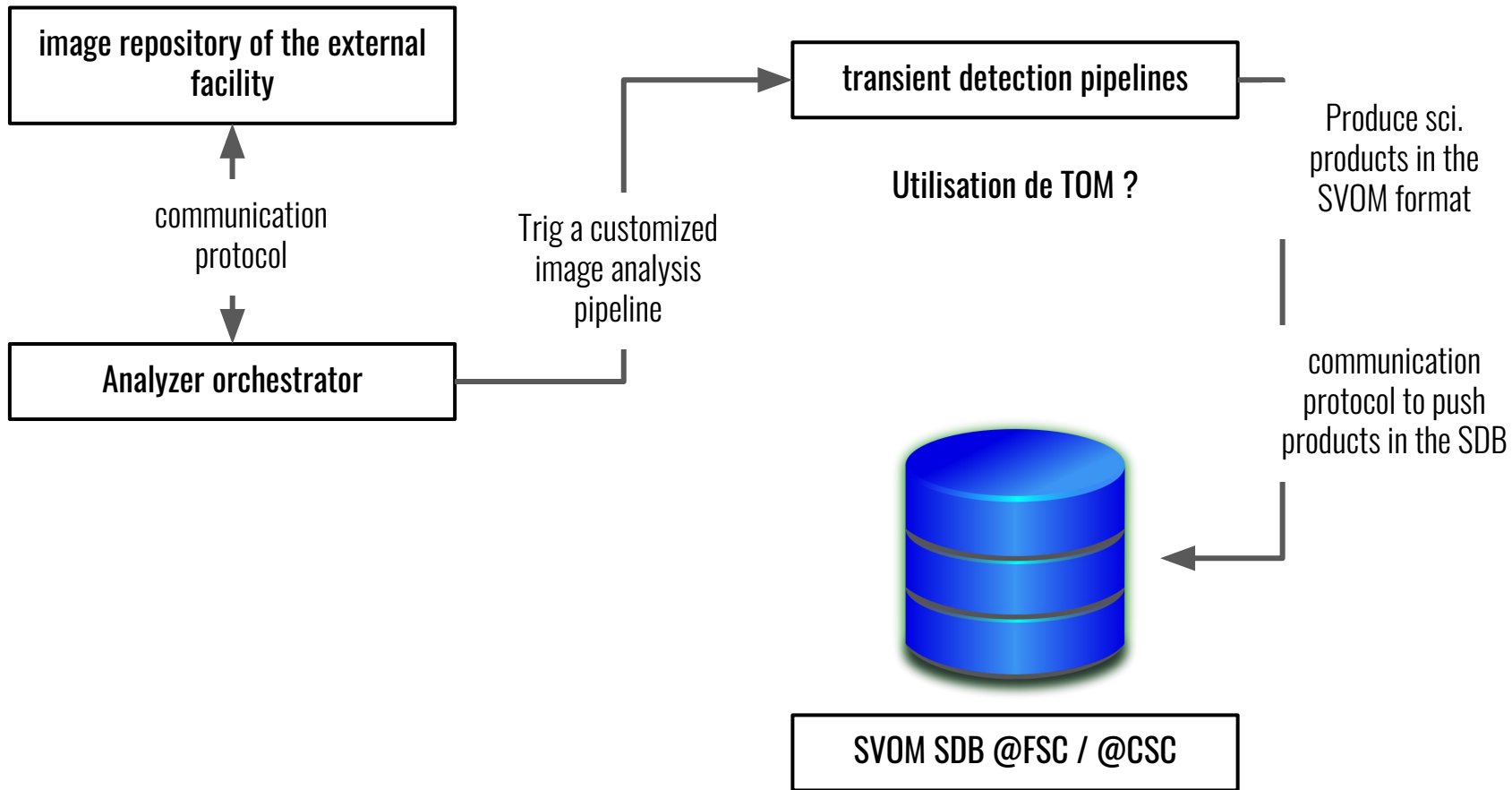
live discussion when an
alert sequence is started

H. Louvin, S. Basa & D. Turpin

**Image analysis pipeline
contact : D. Turpin**



Proposal for external partners (at least for photometric data)





SVOM / IRiS ToO follow-up system

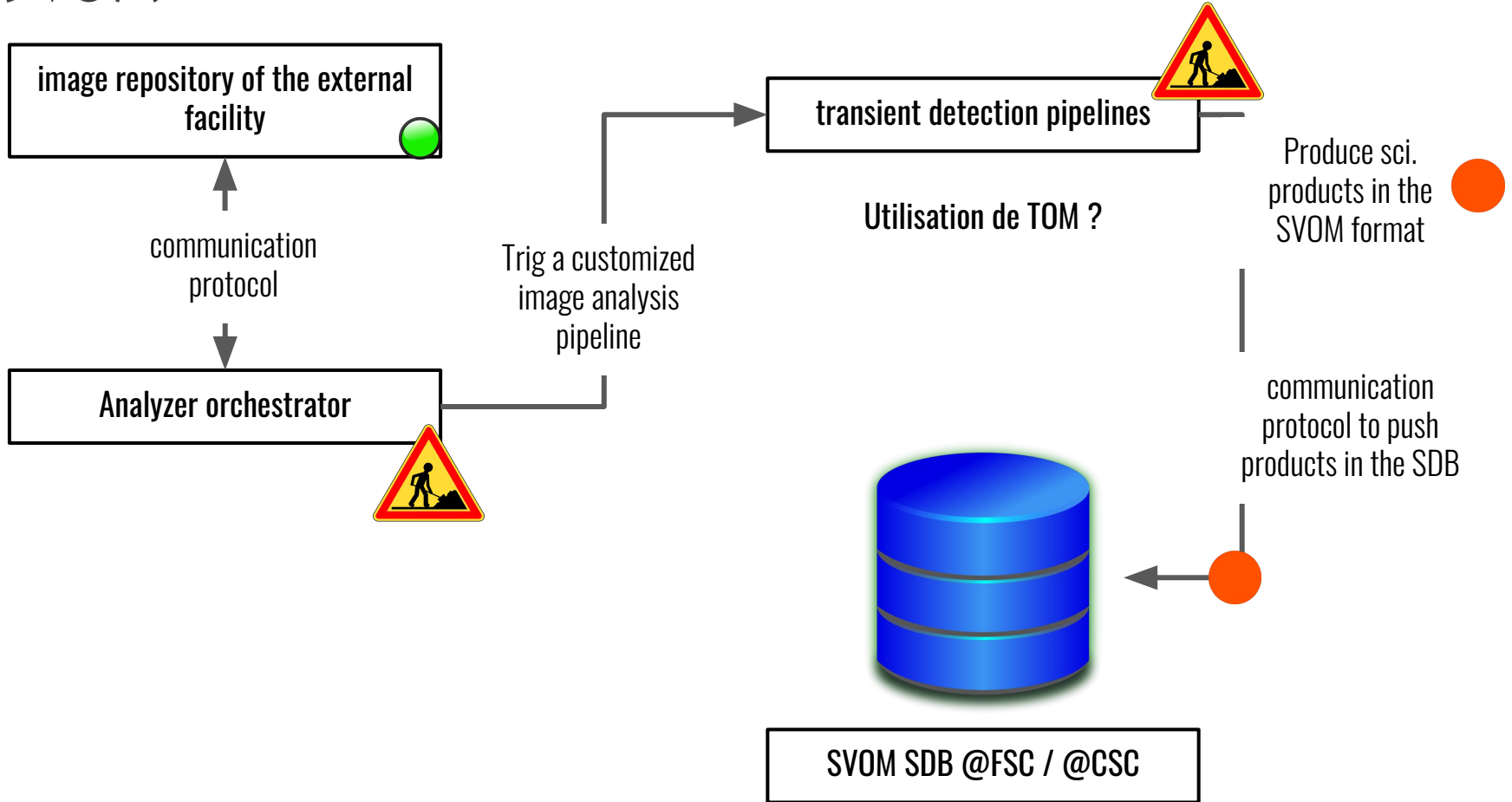


image analysis : pre-processing

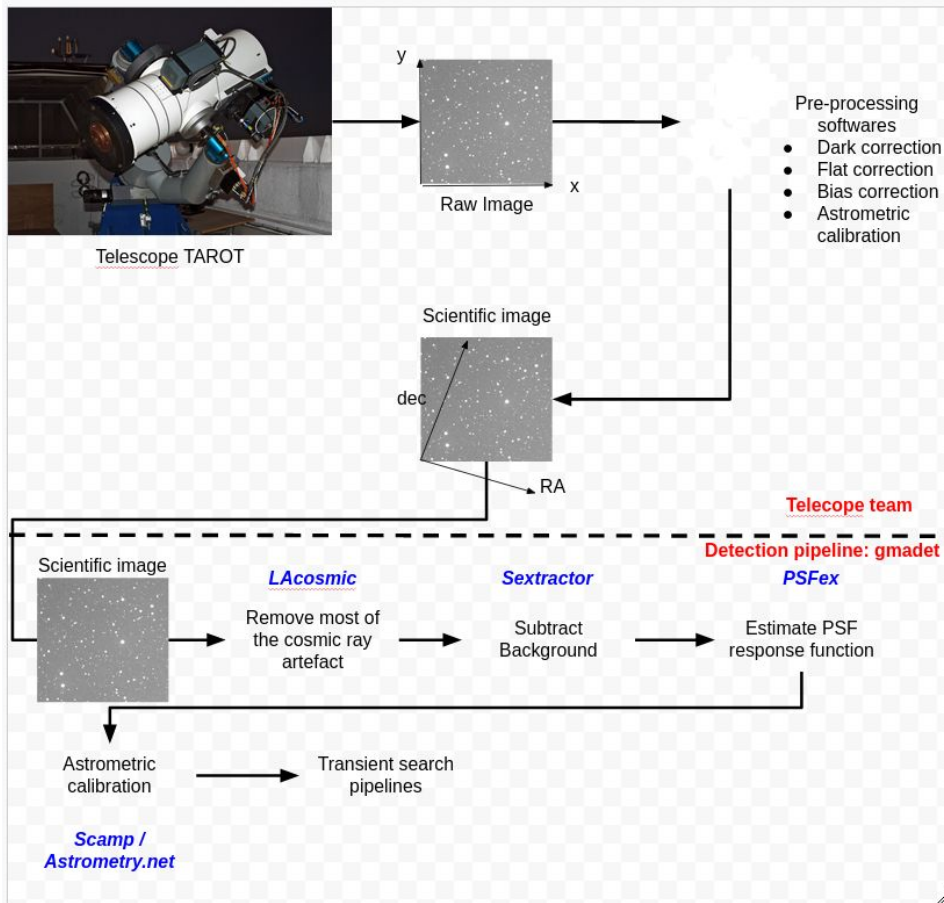
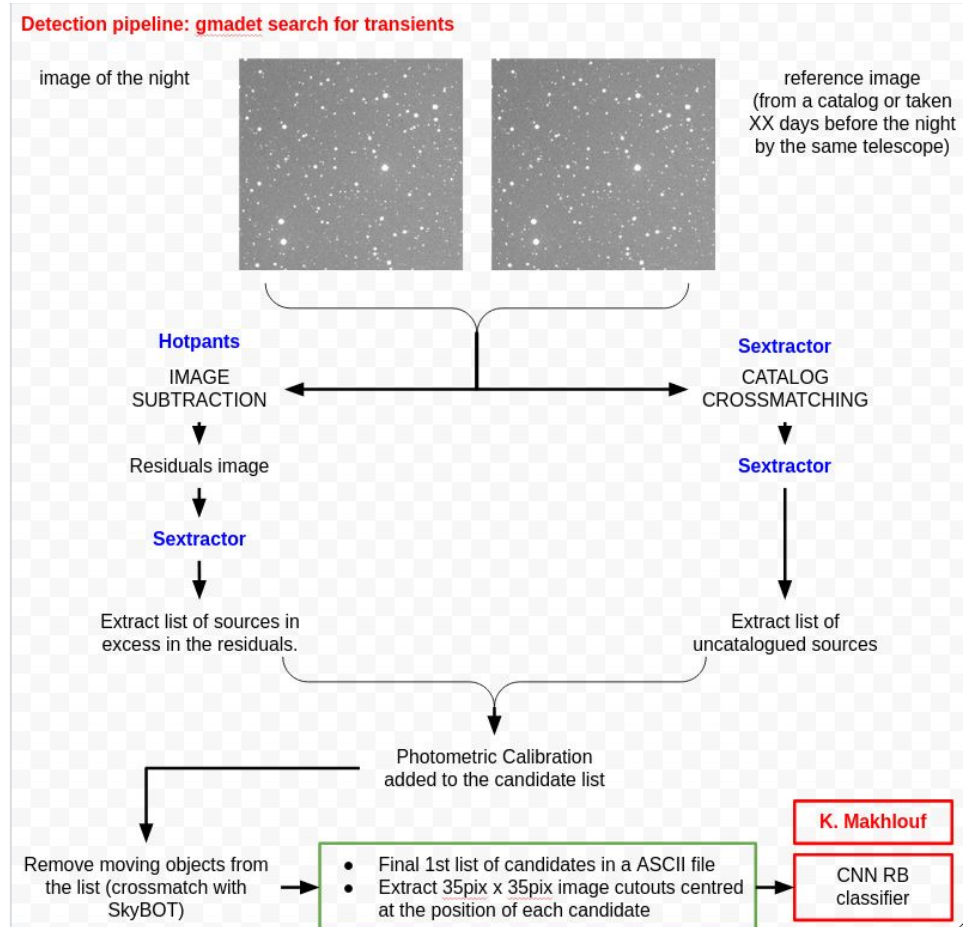


image analysis : search for transients





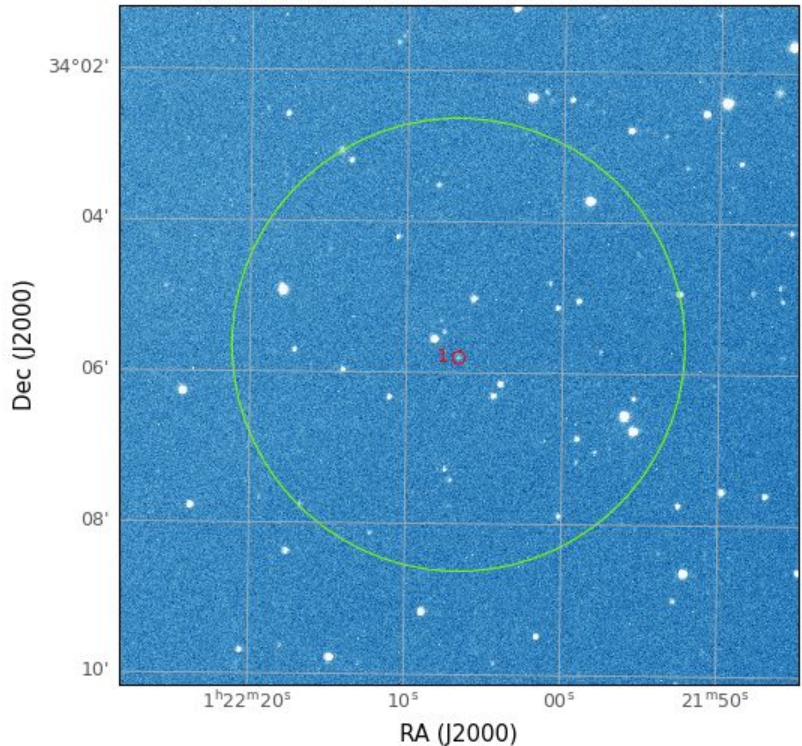
Transient detection pipelines : we are testing STDPipe (publicly available)

functionality	STDPipe https://github.com/karpov-sv/stdpipe	Software / default catalog references
image pre-processing	✗	
astrometric calibration	✓	SCAMP, Astrometry.NET
photometric calibration	✓	PanSTARRS, NOMAD, GAIA, USNO, etc.
image stacking	✓	SWarp, Montage
Source extraction	✓	SExtractor
catalog crossmatching	✓	PanSTARRS sub-images, HiPs service CDS
image subtraction	✓	Hotpants
cosmic-ray filter	✓	LAcosmic,
Minor Planet checker	✓	SkyBot, MP checker
Real/Bogus CNN filter	✗ (TB integrated)	O'TRAIN

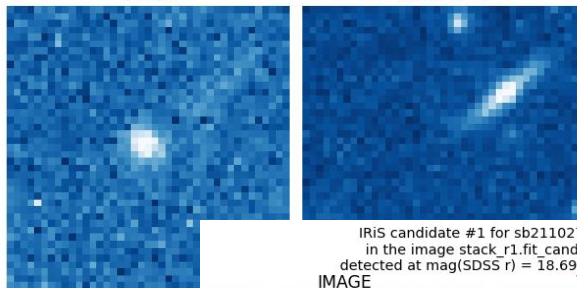


Some typical products : we are testing STDPipe (publicly available)

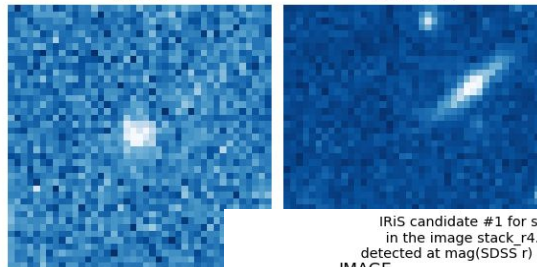
IRiS Finding Chart (SDSS r) of the trigger sb21102776
at the date :2021-10-27T20:51:50.000



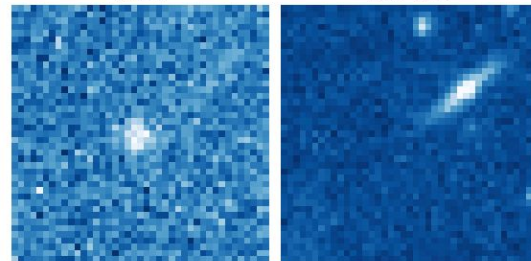
IRiS candidate #1 for sb21102776
in the image stack_all_longsequence.fit_cand#1
detected at mag(SDSS r) = 18.74+/-0.05
IMAGE TEMPLATE



IRiS candidate #1 for sb21102776
in the image stack_r1.fit_cand#1
detected at mag(SDSS r) = 18.69+/-0.08
IMAGE TEMPLATE

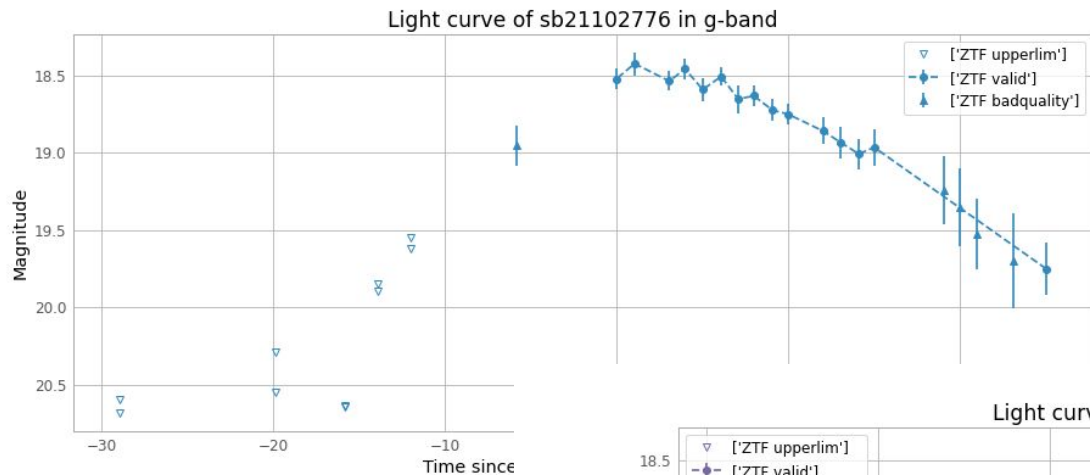


IRiS candidate #1 for sb21102776
in the image stack_r4.fit_cand#1
detected at mag(SDSS r) = 18.58+/-0.08
IMAGE TEMPLATE

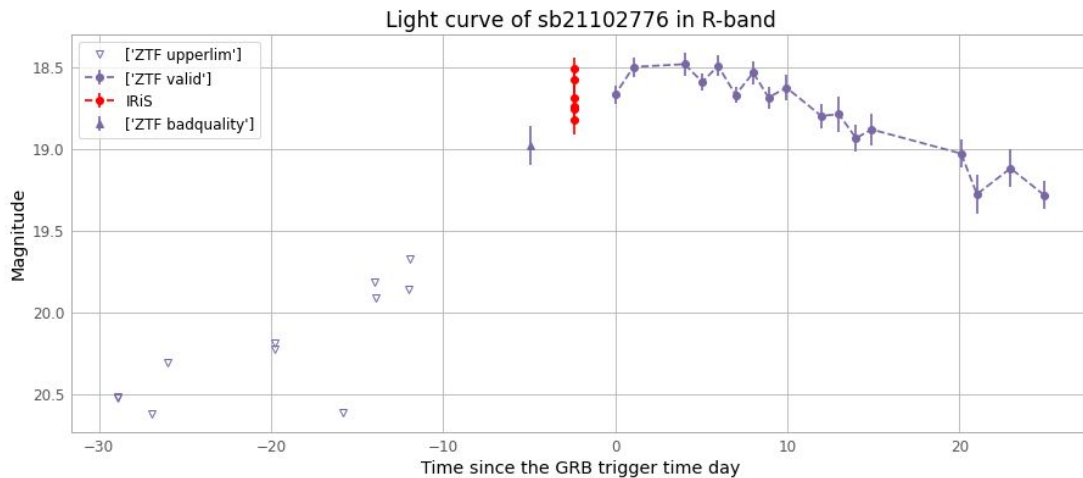




Some typical products : we are testing STDPipe (publicly available)



crossmatch avec BD





Our targets tonight

2 recent SN (brighter than $r \sim 18$)

- ZTF22aadpuwe/SN2022fuc : ($g \sim 17.13$) on 2022-04-05 10:49:26 UTC -> alert at **22h30 local time** coordinates 188.6426901 +63.5184449
- ZTF22aaddorn/SN2022eyj : ($r \sim 16.61$) on 2022-04-02 09:35:53 UTC -> alert at **23h30 local time** coordinates 169.502291106 +7.8457608737



Prepare yourself !!!!!



Connect to SVOM SLACK

Connect to iFSC-tools

Connect to Astro-COLIBRI

**WE MEET AT BUILDING NEAR
THE COFFEE BREAK AREA!!!!**

10.00 pm