

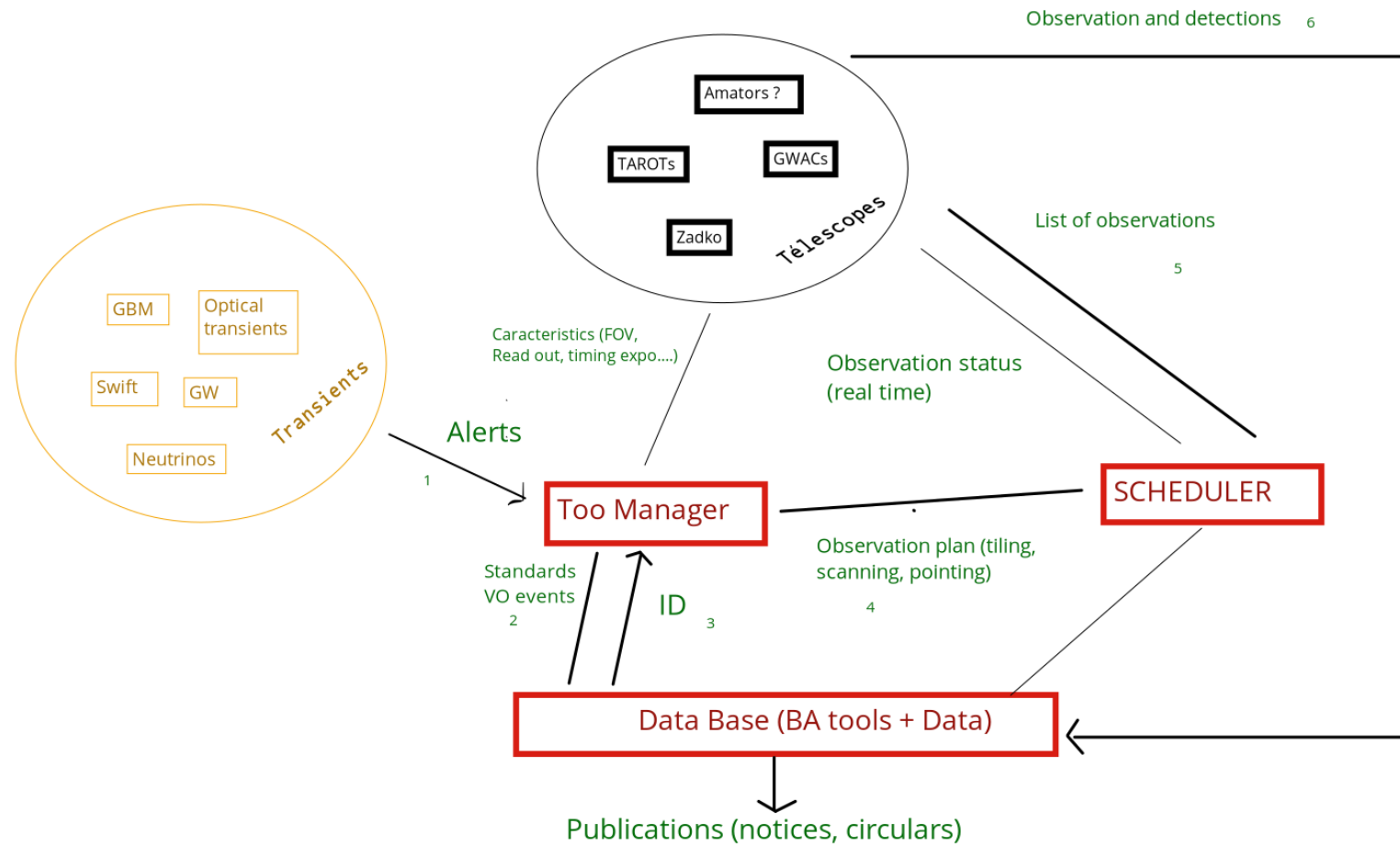
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# GRANDMA Meeting Too Manager

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Sarah Antier (19/11/2018) for LAL group

# Infrastructure



- Reception of the transient alerts
- Cross-matched the infos
- Send internal standard VO events with the use of ID given by database
- Preparation of the observation coverage for each telescopes (without observability info)
- Provide info to Scheduler and DataBase

# Reception of the alerts

## GW

- **Preliminary** within minutes
- **Initial** (+circulars within hours)
- **Update** (when localization is better)
- **Retractation** (within a day for BBH, hours for BNS, NSBH)

## GRB

- **Swift-BAT**
- **Fermi-GBM**
  - Flight detection
  - Flight position
  - Ground position
  - Human vetting
- **Others ?**

## Others

- **Neutrinos**
- **Optical notices**

# Standard VO events: GRB

## Alert characteristics

### <Who>

- Grandma

### <What>

- Time of the astrophysical event
- Trigger ID
- Delay since the GRB delay
- GRB ID
- SNR
- LC
- Hardness ratio
- GRB figure of merit
- Update

### <WhereWhen>

- Astro-coordinate
- ISOTIME

+ STATUT: initial, update, ...

## Observation plan characteristics

### ONE NOTICE PER TELESCOPE

- **Description**
- **Grid\_id : only for**
- **pos.eq.ra**

The right ascension at center of fov in equat. coordinates

- **pos.eq.dec**

The declination at center of fov in equat. coordinates

- **ra\_width**

Width in RA of the fov

- **dec\_width**

Width in Dec of the fov

- **prob\_sum**

The sum of all pixels in the fov

- **priority**

**WHAT IS NEEDED FOR SCHEDULER TO START OBS ?**

# Observation plans

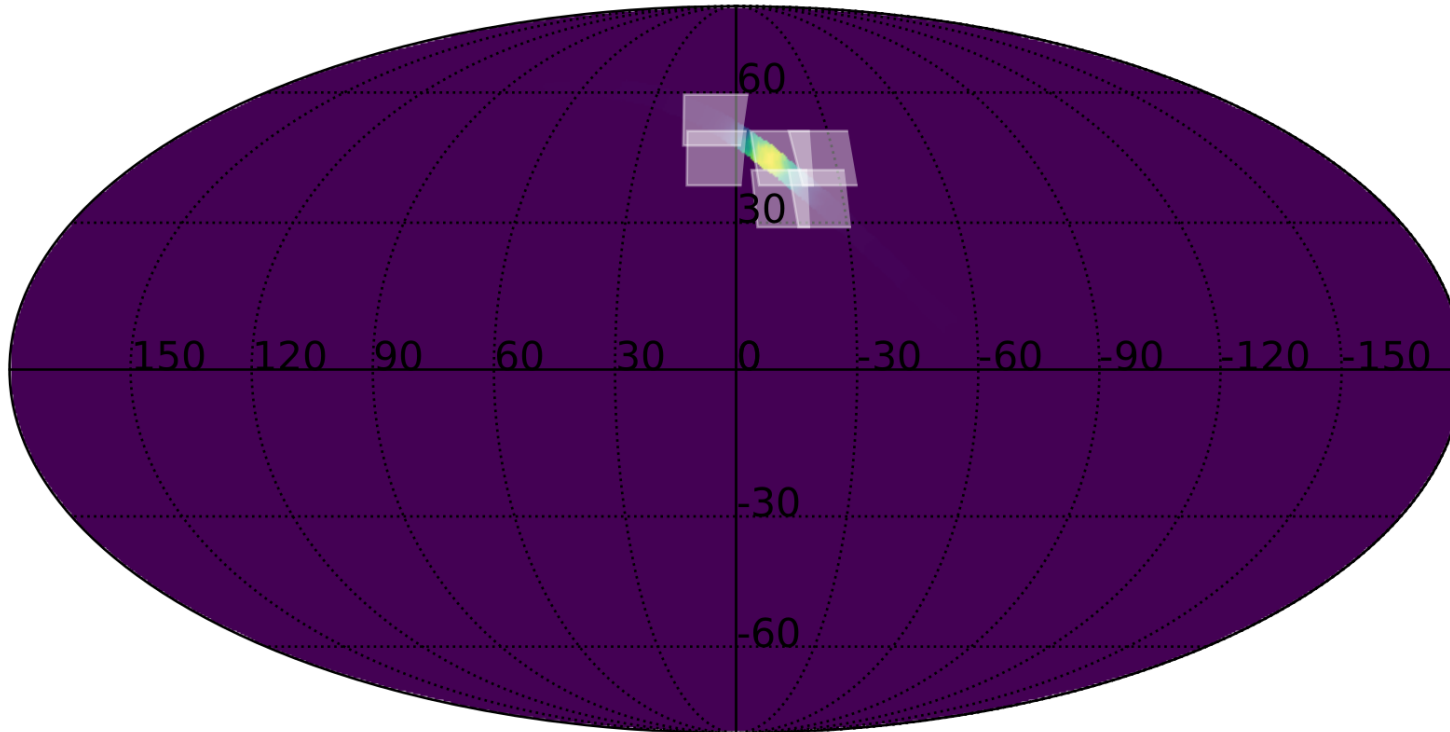
Michael Coughlin, Jean-Grégoire, Nicolas Leroy and LAL group

<https://github/mcoughlin/gweopt/>

*Further informations for Galaxy targeting in Jean-Grégoire presentation*

*Tiling (GWACs, same approach as O2)*

- Using predefined GWACs grids (Xuhui et al)
- Calculation of the grids with the best probability



**Example for GRB180913  
GWACs**

# TO DO LIST

- Gestion of Fermi/Swift alerts
- Add LAT events or others ...
- Merge the codes for GW, neutrinos and GRBs
- Upload to git 😊
- **We need to merge with TAROT project**
- **Participation to the full GRANDMA infrastructure (ID tracker, ....)**
- Observation plan in progress (see Jean-Grégoire talk)
- **Communication between LAL and NAand OC (scheduler, database, ...) to send the messages**
- Communication with LAM for TAROT Iris for the training ?