Principle of SVOM-GRANDMA Scheduler for O3

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2018.11.19 Beijing

GRANDMA NETWORK

Alerts (GRB, Neutrino, GW, OT during GW follow-u)

LAL, France

VOEvent (1)

GRANDMA server

GRANDMA DATABASE

?

VOEvent (2) like GCN?

Observation scheduling and dispatching

FTP?

GRANDMA DATABASE

?

FTP?

Tarot telescope

Conditions (telescope availability flag)

follow-up (observation & data processing)

Obs & OT information, Images, Result

Other small telescopes (IRis, etc.)

follow-up (observation & data processing)

Obs & OT information, Images, Result

BA Web Server

BA Tools

Alert check

Alert monitor

Alert quick analysis

Alert quick decision

Alert report

HTML (Python client)

HTML or SQL? (Python client)

HTML (Python client)

GWAC, 60cm & 30cm

Conditions (weather, telescope capability, availability, etc.)

follow-up (observation & data processing)

Obs & OT information, Images, Result

CGFT telescope

?

Conditions (telescope availability flag)

VOEvent (1)

follow-up (observation & data processing)

FTP?

Obs & OT information, Images, Result

Email?

FTP?

Other Large telescopes (ToO allocation time)

follow-up (observation & data processing)

Obs & OT information, Images, Result

Goal for O3

YES: Scheduling for global multiple telescopes for GW follow-up

NO: for GRB, neutrinos etc.

Objects (telescopes)

YES: Automatic imaging follow-up telescopes

Class 1 (realtime/ near realtime feedback):

- GWAC, GWAC-F60A, GWAC-F60B, GWAC-F30

Class 2 (knowing status and feedback in short time (1 hour)):

- Tarot networks, CGFT

Class 3 (No status and feedback in longer time):

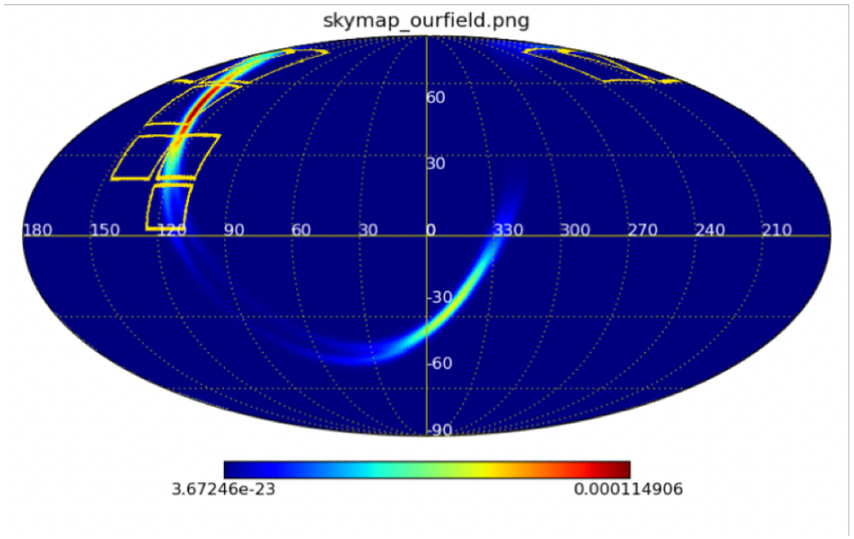
- other

NO: Other telescopes for ToO allocation time

Strategies

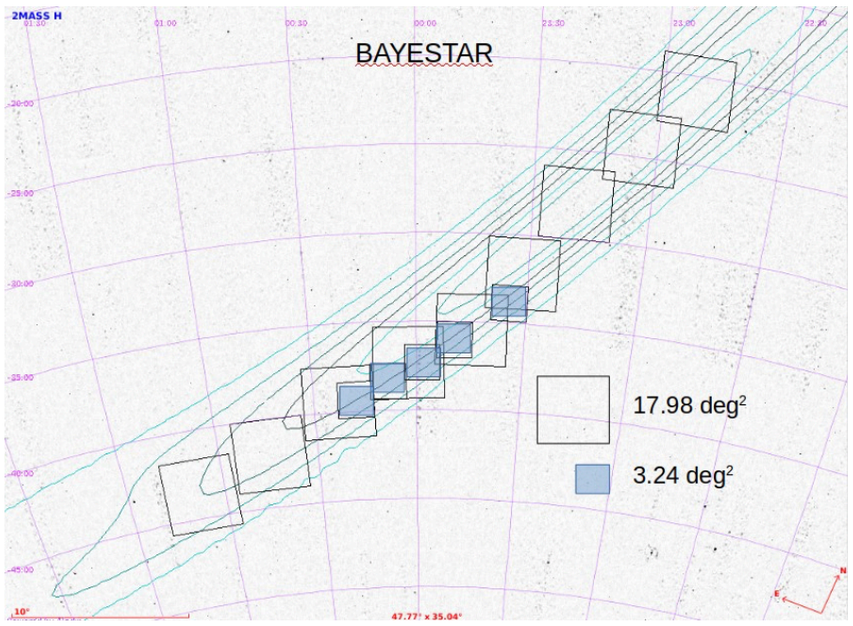
Tiling

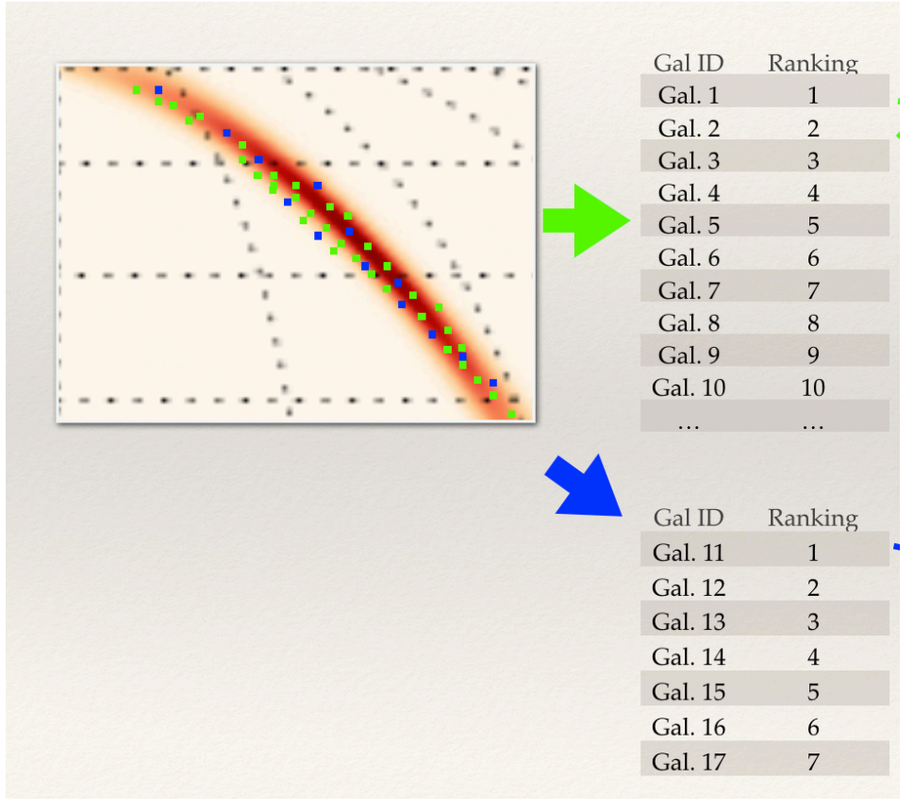
- GWAC



Galaxy targeting or Tiling or Mixed?

- Others





Priorities

Galaxies or tiles with higher probabilities go to larger telescopes

For skymap with larger area, each telescope covers different galaxies or tiles.

For skymap with smaller area, some telescopes covers overlapped galaxies or tiles

Development

1st: automatic follow-up scheduling mode.

2nd step: semi-automatic follow-up scheduling mode.

3rd step: semi-automatic revisit scheduling mode.