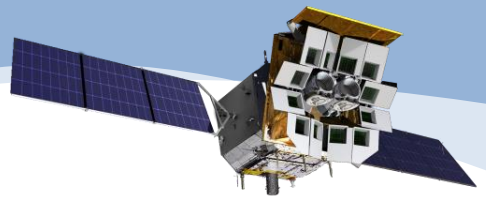


爱因斯坦探针
einstein probe

# Transient Advocate Program

He-Yang Liu on behalf of EPSC

The 7th EP CAS-ESA-MPE-CNESjoint workshop @ Beijing 2024-04-25

# Outline

## 1. Transient Advocate Role

- What are they supposed to do?
- How do they do these?

## 2. Transient Advocate Group

- ✓ Call for Transient Advocates
- ✓ Transient Advocate workshop

## 3. Working plan

# “To-Do” list of Transient advocate

Deal with ToO and DDT proposals

Monitor the status of satellite and payloads

Deal with Instrument update requirements

Beidou and VHF alerts

LIGO GCN  Notice

Source identification

Data analysis

publish GCN circular & ATel

Write Transient report and notify the STP members

propose follow-up requests

# TA tools : proposal system （will open later）

爱因斯坦探针 einstein probe

Home | Mission | News | Consortium | Data Center | User Support | Proposal | Activities | Publications | LEIA

## Proposal List for Admin

**Season:**EP ToO Season **Request:**26400.0 Seconds **Assigned:**10500.0 Seconds

**Total:**14 **P1 - P10:** 0 **X:** 0 **Other:** 3

Back to list | Life-cycle of Stars and Int | All | NO, Name or | Search | Clear

| NO | PI | Urgency | Seconds(R/A) | Grade | Obs Time | Anticipated Too | Project | Proposal | Operation |
|---|---|---|---|---|---|---|---|---|---|
| EP-EP_ToO_Season-0015 | Heyang Liu | None (ToO) | 1000.0 / 1000.0 | 2024-06-01T09:57:53Z | A | - | Y | View | Enter Withdraw Grade Project |
| EP-EP_ToO_Season-0014 | Yunfei Xu | None (ToO) | 1000.0 / -- | 2023-10-01T09:47:55Z | - | - | - | View | Enter Withdraw Grade Project |
| EP-EP_ToO_Season-0013 | Wenjie Zhang | None (ToO) | 4000.0 / 0.0 | 2024-06-01T13:45:16Z | D | - | - | View | Enter Withdraw Grade Project |
| EP-EP_ToO_Season-0012 | Wenjie Zhang | None (ToO) | 5000.0 / -- | 2024-06-01T12:26:16Z | - | - | - | View | Enter Withdraw Grade Project |

## EP Proposal Coverpage

No: EP-Cycle1-0012

**Proposal Title:**

Anticipated-ToO Observations of X-ray Flares from Galactic Globular Clusters

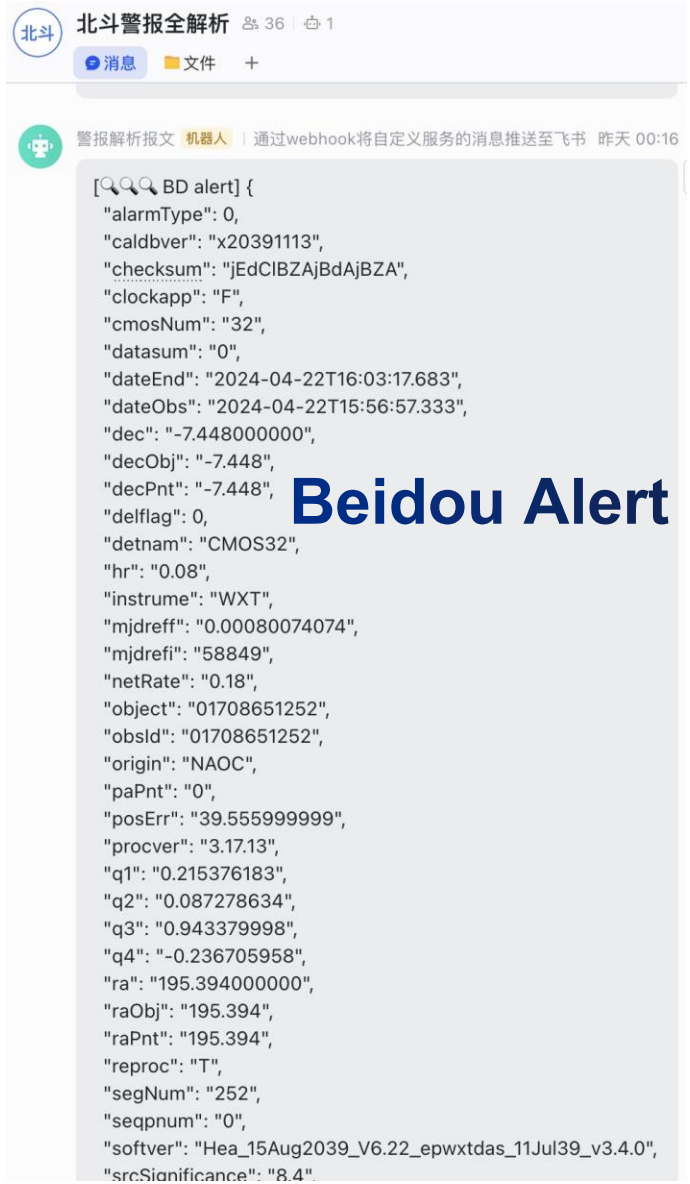
**Scientific Category:** (tick all that apply)

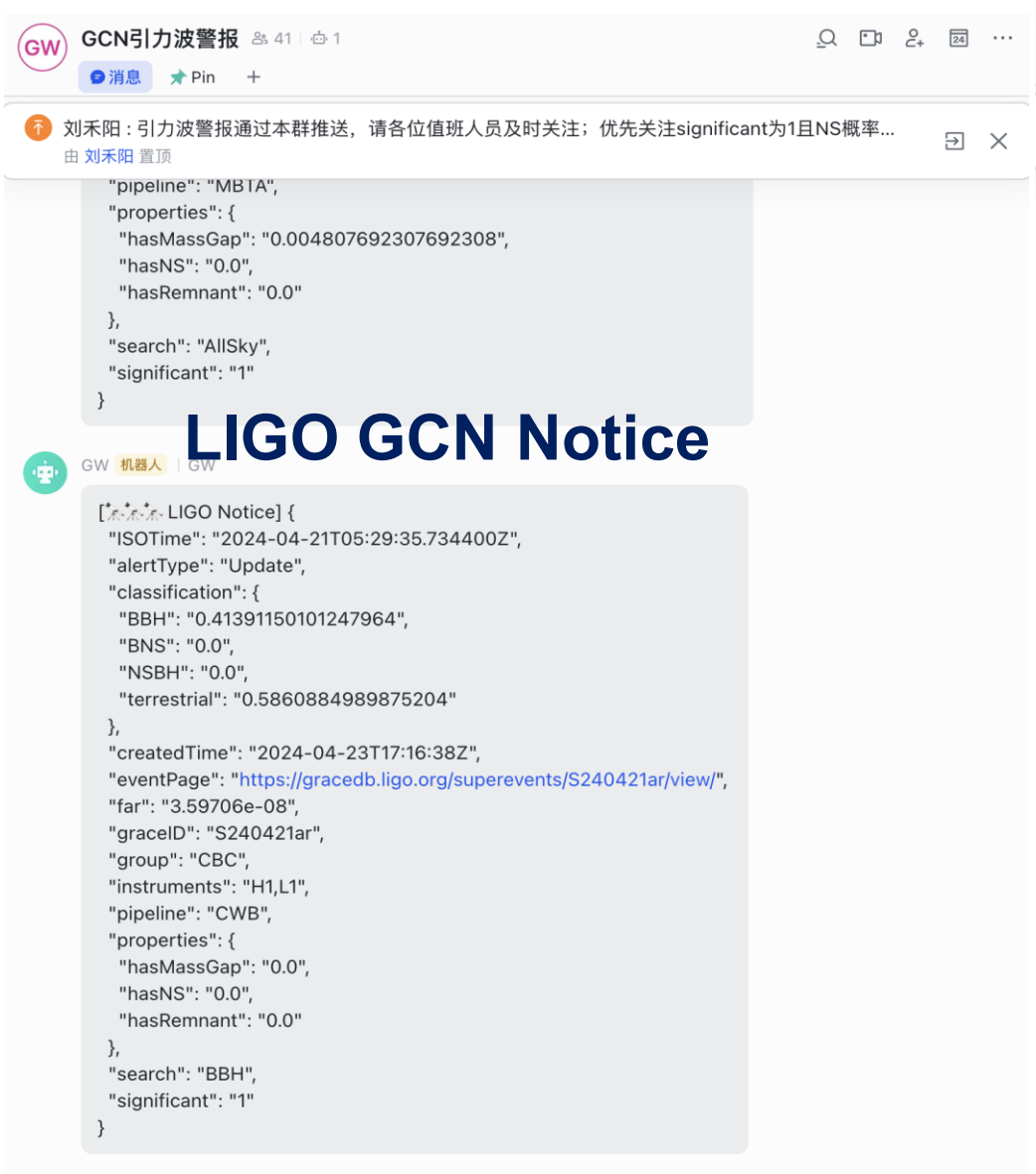
- ☐ Life-cycle of Stars and Interstellar Medium
- ☒ Isolated and Binary Compact Objects
- ☐ Galaxies, Groups of Galaxies, Clusters of Galaxies and Superclusters
- ☐ Active Galactic Nuclei and Tidal Disruption Events
- ☐ Solar System Objects, Stars and Exoplanets
- ☐ Cosmology, Extragalactic Deep Fields and Large Extragalactic Areas
- ☐ Gravitational Wave Electromagnetic Counterpart
- ☐ Other

**Proposal Abstract:**

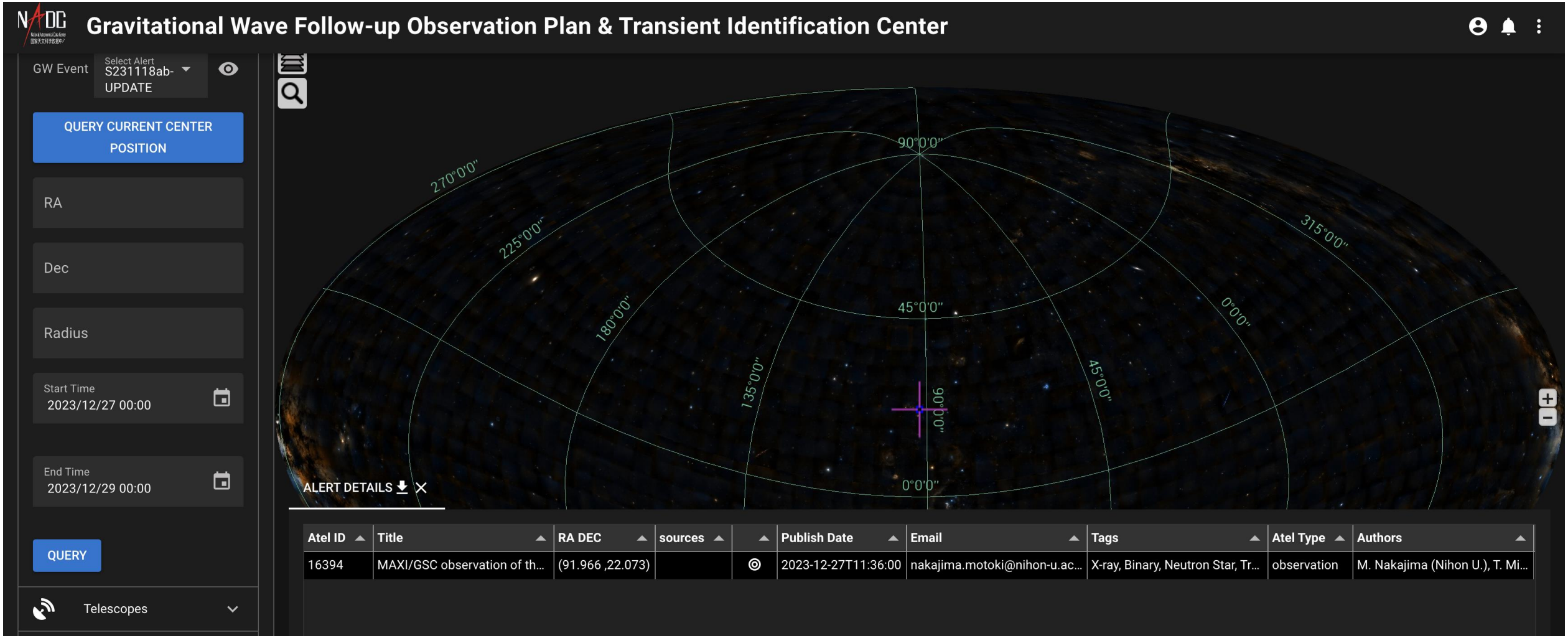
Globular clusters (GCs) are tightly bound clusters of thousands of stars. They contain various types of X-ray sources, such as X-ray binaries, cataclysmic variables, active main-sequence binaries, and millisecond pulsars. More importantly, both theoretical predictions and computational models suggest that GCs may host intermediate-mass black holes (IMBHs) capable of generating X-ray flares during the accretion process. EP/WXT may observe numerous Galactic GCs during all-sky monitoring, offering the potential to serendipitously detect X-ray flares from GCs. These events merit prompt follow-up observations using EP/FXT to verify their origins. This proposal aims to quickly follow up strong X-ray flares from a sample of Galactic GCs previously detected in X-rays with a deep EP/FXT observations of 20 ks, in the hope of uncovering signatures of IMBHs or the outbursts from other types of X-ray sources.

# TA tools : Alert Notification

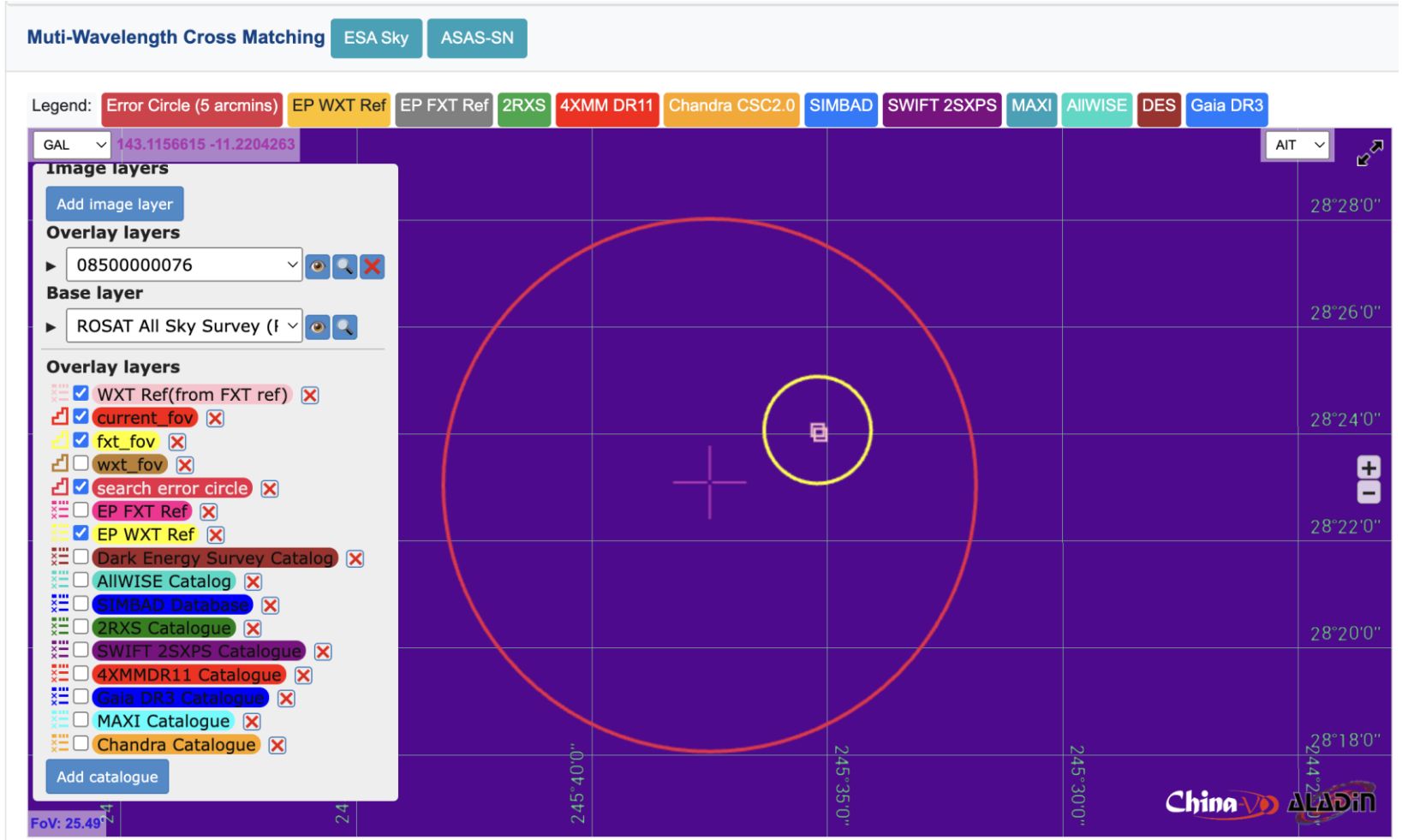



# TA tools : generate ToO-MM observation plan



# TA tools : source identification

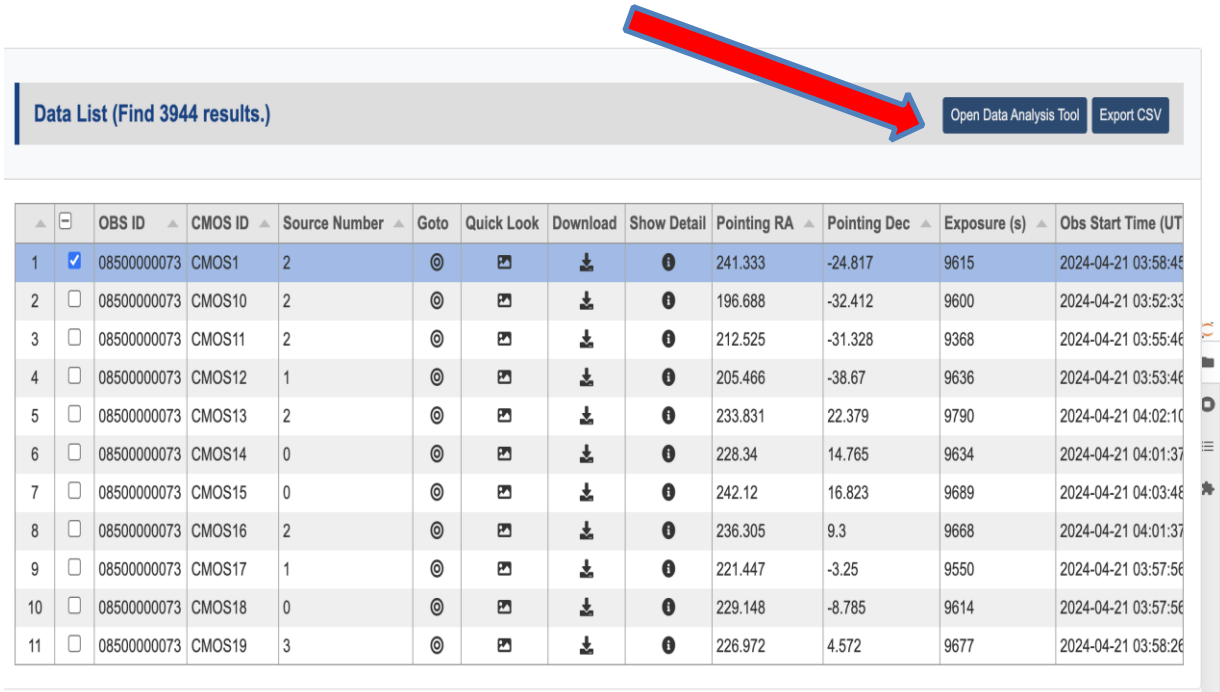



X-ray Counterpart from EP Reference Catalog

| | Name | RA | Dec | Pos Err | Sep | Flux | Prob | P_single | ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2RXS J093225.6-111102 | 143.107 | -11.184 | 2.509 | 135.950 | 9.053e-11 | 1.000e+0 | 5.295e-2 | 8238104 |
| 2 | 1eRASS J093225.2-111103 | 143.105 | -11.184 | 2.367 | 136.686 | 2.833e-11 | 1.000e+0 | 4.150e-1 | 8266426 |

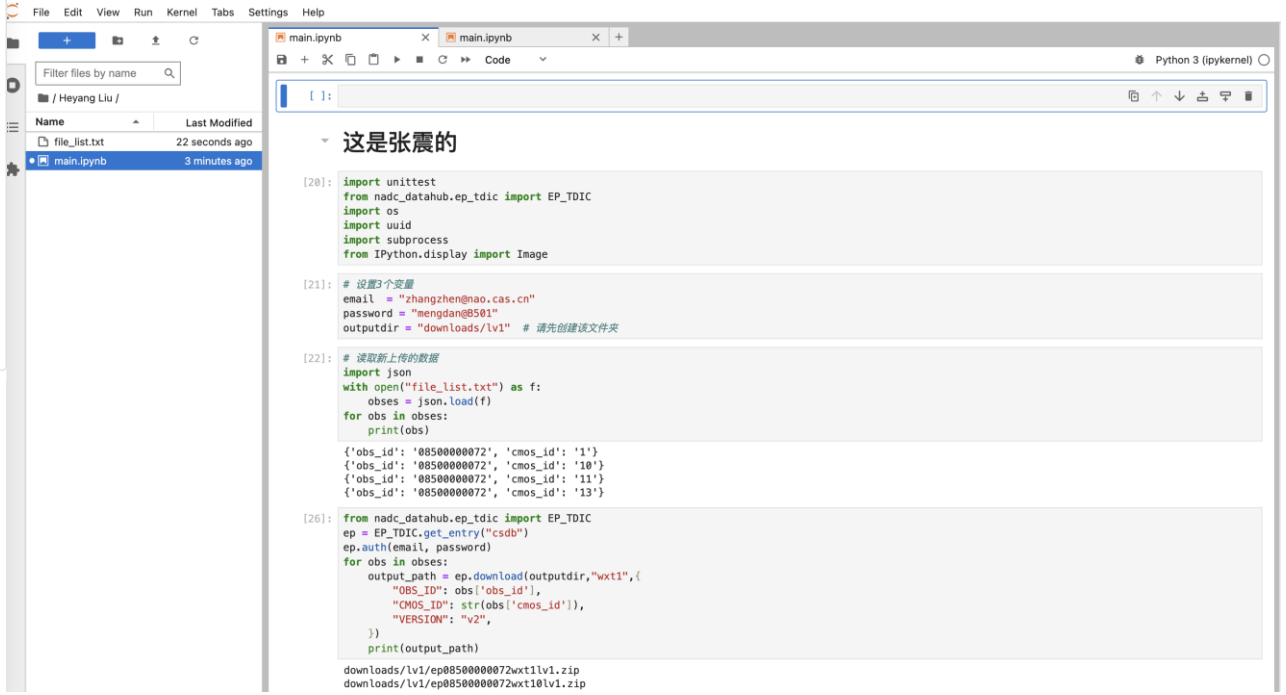
**Also see Dongyue's talk**

# TA tools : Data Analysis online




| | | OBS ID | CMOS ID | Source Number | Goto | Quick Look | Download | Show Detail | Pointing RA | Pointing Dec | Exposure (s) | Obs Start Time (UT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ☑ | 08500000073 | CMOS1 | 2 | | | | | 241.333 | -24.817 | 9615 | 2024-04-21 03:58:45 |
| 2 | ☐ | 08500000073 | CMOS10 | 2 | | | | | 196.688 | -32.412 | 9600 | 2024-04-21 03:52:33 |
| 3 | ☐ | 08500000073 | CMOS11 | 2 | | | | | 212.525 | -31.328 | 9368 | 2024-04-21 03:55:46 |
| 4 | ☐ | 08500000073 | CMOS12 | 1 | | | | | 205.466 | -38.67 | 9636 | 2024-04-21 03:53:46 |
| 5 | ☐ | 08500000073 | CMOS13 | 2 | | | | | 233.831 | 22.379 | 9790 | 2024-04-21 04:02:10 |
| 6 | ☐ | 08500000073 | CMOS14 | 0 | | | | | 228.34 | 14.765 | 9634 | 2024-04-21 04:01:37 |
| 7 | ☐ | 08500000073 | CMOS15 | 0 | | | | | 242.12 | 16.823 | 9689 | 2024-04-21 04:03:48 |
| 8 | ☐ | 08500000073 | CMOS16 | 2 | | | | | 236.305 | 9.3 | 9668 | 2024-04-21 04:01:37 |
| 9 | ☐ | 08500000073 | CMOS17 | 1 | | | | | 221.447 | -3.25 | 9550 | 2024-04-21 03:57:56 |
| 10 | ☐ | 08500000073 | CMOS18 | 0 | | | | | 229.148 | -8.785 | 9614 | 2024-04-21 03:57:56 |
| 11 | ☐ | 08500000073 | CMOS19 | 3 | | | | | 226.972 | 4.572 | 9677 | 2024-04-21 03:58:26 |

analyze the WXT data online without building the environment




**Also see the talk of Haiwu and Yunfei**

# TA management

- TAs are from EPSC or STPs
- Working in three shifts：9:00-16:00,16:00-23:00, 23:00-9:00; 2 TAs per shift (2-3 TAs @ 9:00-21:00 during the commissioning phase)
- Workplace：the operation room at NAOC, on-line in the future
- Appointment: The duty schedule per month
- Report the operation at the regular meeting

# First TAs are from EPSC

# Schedule of TA mission

- 2022.7-2024.1:  serving for LEIA as TA
- 2023.12：Call for TAs from the EP STP members
- 2023.12.29: 1st TA workshop
- 2024.1.9: EP launched!
- 2024.1-now: Update the TA tools
- 2024.4.8-11: 2nd TA workshop


EP TA workshop @ NAOC 2024-04-08

# Working plan

## 1. Organize the 3rd EP workshop in June or July 2024

## 2. Develop and update the TA tools and procedures

- ☐ List the recent alert  information (GCN & ATel & TNS) on the source page
- ☐ Update the ToO-MM procedures
- ☐ Seek transients with short timescale
- ☐ Some little tools not complicated but much helpful
- ☐ More guidelines

Thank you!