



# PV Observations and Cycle-1 Proposals



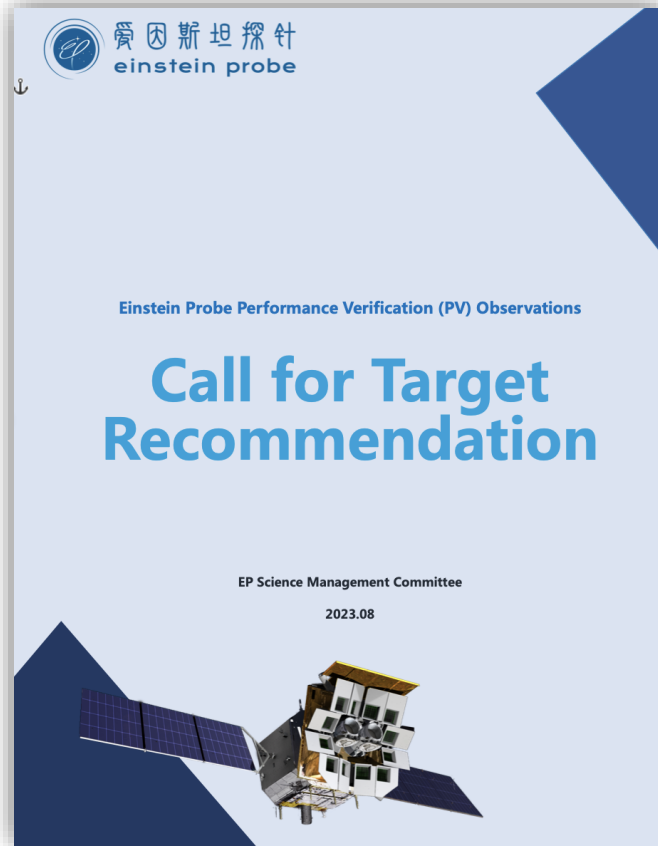
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# PV Observations

- **PV: announcement of PV target recommendation in 2023**



# PV Observations

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- **PV: collected a list of PV observations from STP members**
- Source type: XRB, galaxy cluster, AGN, pulsar, region survey, magnetar, SNR

Party	No of Proposals	Total Exposure Requested
ALL	33	1191 ks
CAS	26	1006.1 ks
MPE	4	115 ks
ESA	3	70 ks

**PV time available: 350 ks**



**Oversubscription factor: 3.4**

# PV Observations

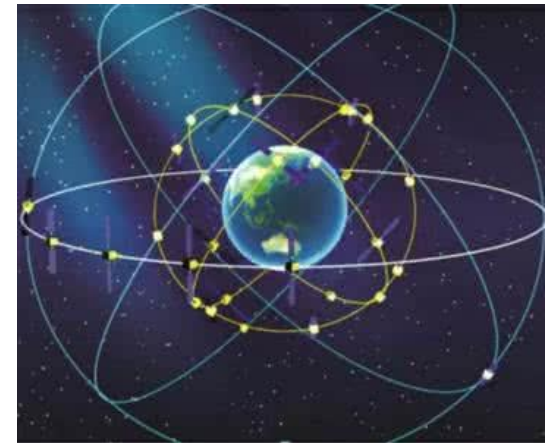
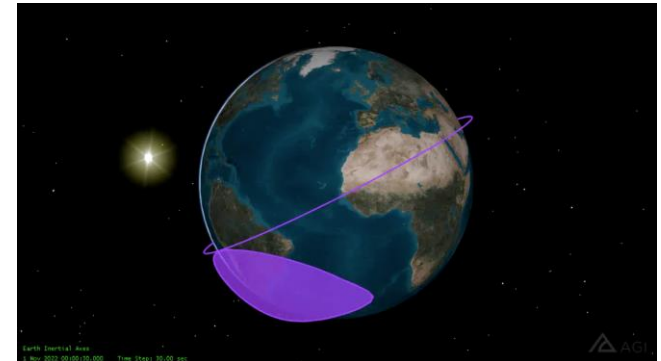
- **PV: observations have all been conducted**
- **PV period: 22<sup>nd</sup> March to 5<sup>th</sup> April (interrupted by geomag. storm and ToO obs)**
- **Webpage: <https://ep.bao.ac.cn/ep/cms/article/view?id=165>**

## PV Targets and Schedule

Source Name	RA	Dec	Proposed Duration	Time Start (UTC)	Time Stop (UTC)	FXT-A Mode	FXT-B Mode	Contact Person	Status
WXT All-sky Survey	/	/	2 days	2024-03-22T00:58:04	2024-03-24T01:09:11	FF-thin	FF-thin	Yuan Liu	Observed
ILHAASO J1740+0948u	265.03	9.81	10000 s	2024-03-24T01:09:11	2024-03-24T07:33:55	FF-thin	FF-thin	Haiwu Pan	Observed
M86 pointing 2	186.3875	13.061944	20000 s	2024-03-27T09:27:29	2024-03-27T22:18:20	FF-thin	FF-thin	Jeremy Sanders	Observed
Galactic Center	266.416792	-29.007833	30000 s	2024-03-27T22:18:20	2024-03-28T19:10:58	FF-thin	FF-thin	Chichuan Jin	Observed
Lockman Hole	161.25	58	60000 s	2024-03-28T19:10:58	2024-03-30T06:23:55	FF-thin	FF-thin	Chichuan Jin	Observed
A3571	206.902792	-33.034642	35000 s	2024-03-30T06:23:55	2024-03-31T06:28:38	FF-thin	FF-thin	Heng Yu	Observed
ILHAASO J0428+5531	66.63	54.63	10000 s	2024-03-31T06:27:38	2024-03-31T13:01:02	FF-thin	FF-thin	Haiwu Pan	Observed
A1795 pointing 2	206.333333	26.595556	40000 s	2024-03-31T13:01:02	2024-04-01T14:42:23	FF-thin	FF-thin	Yong Chen	Observed
4U 1728-34	262.990542	-33.834028	20000 s	2024-04-01T14:42:23	2024-04-02T03:33:03	TM-medium	TM-medium	Alessio Marino	Observed
M86 pointing 1	186.54875	12.946222	20000 s	2024-04-02T03:33:03	2024-04-02T16:32:13	FF-thin	FF-thin	Jeremy Sanders	Observed
1E 1547.0-5408	237.7255	-54.306694	15000 s	2024-04-02T16:32:13	2024-04-03T00:25:21	PW-thin	PW-thin	Francesco Coti Zelati	Observed
1E 1547.0-5408	237.7255	-54.306694	15000 s	2024-04-03T00:25:21	2024-04-03T13:15:59	FF-thin	FF-thin	Francesco Coti Zelati	Observed
4U 1636-536	250.231658	-53.751375	10000 s	2024-04-03T13:15:59	2024-04-03T19:41:17	TM-medium	PW-medium	Renxin Xu, Guobao Zhang, Rongfeng Shen	Observed
W28 pointing 1	270.27	-23.49	18000 s	2024-04-03T19:41:17	2024-04-04T08:31:54	FF-thin	FF-thin	Fangjun Lu	Observed
W28 pointing 2	269.73	-23.49	18000 s	2024-04-04T08:31:54	2024-04-04T19:46:11	FF-thin	FF-thin	Fangjun Lu	Observed
A1795 pointing 1	207.220833	26.595556	10000 s	2024-04-04T19:46:11	2024-04-05T00:35:10	FF-thin	FF-thin	Yong Chen	Observed
4U 0614+091	94.280417	9.136944	15000 s	2024-04-05T00:35:10	2024-04-05T11:49:27	PW-medium	PW-medium	Chandreyee Maitra	Observed

# Cycle-1 Proposals

- **EP Observation modes**
  - ★ (1) **Survey mode**
  - ★ (2) **Autonomous follow-up mode: FXT**
  - ★ (3) **ToO mode: FXT and WXT**
  - ★ (4) **Calibration Mode**
- Onboard data reduction & transient search & autonomous follow-up
- Alert data rapid downlink
  - ★ **BD satellite navigation system**
  - ★ **VHF network**
- fast ToO uplink (BD, tens of min.)



# Cycle-1 Proposals

- **Assumed Time Allocation for different observing modes:**

Total Obs Time per year	~18 Ms ( $3.2\text{ks} \times 16\text{orb} \times 365\text{d}$ )
EP-transient Follow-up and ToO	6 Ms ( $80 \times 50 \times 3.2\text{ks} + 150 \times 10\text{orb} \times 3.6\text{ks}$ )
External ToO with EP	6 Ms ( $2 \times 2\text{orb} \times 3.2\text{ks} \times 365\text{d}$ )
AO-1 (EP Science Team)	5 Ms (75-10-10-5%)
AO-1 (GO)	100 ks (5% CAS time)
FXT Calibration	2 Ms



# Cycle-1 Proposals


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- **Cycle-1: Types of proposals accepted**
- Webpage: <https://ep.bao.ac.cn/ep/cms/article/view?id=125>

<b>Type of Proposals</b>	<b>Included in Cycle-1?</b>	<b>Proposers in Cycle-1</b>	<b>Allowed Targets in Cycle-1</b>	<b>Type of Programs</b>
<b>FSTO</b>	yes	STP observers,  Guest observers*	known sources	single obs, monitoring, tilling
<b>Anticipated-ToO</b>	yes		known X-ray sources	

# Cycle-1 Proposals

- **Cycle-1 call for proposals in Oct. 2023**
- Webpage: <https://ep.bao.ac.cn/ep/cms/article/view?id=125>



爱因斯坦探针  
einstein probe

THE EINSTEIN PROBE MISSION  
**CALL FOR OBSERVING PROPOSALS –**  
**1<sup>st</sup> Cycle**

**GUIDANCE**

**EP Science Center, 2023**



爱因斯坦探针  
einstein probe

*EP Science Center*  
*National Astronomical Observatories*  
*Chinese Academy of Sciences*  
*October 16<sup>th</sup>, 2023*

**Einstein Probe Mission Call for Observing Proposals  
(Cycle-1)**

Dear EP science team members,

On behalf of the EP Science Management Committee (SMC), we are pleased to invite you to respond to the call for submitting observing proposals using the Follow-up X-ray Telescope (FXT) of the *Einstein Probe* (EP) mission in its first year of operations (Cycle-1).

EP is currently scheduled to be launched by the end of 2023. This announcement invites prospective EP users to propose targets to observe using FXT. Proposals are subject to peer review organized by each of the Parties (CAS, MPE, ESA and CNES) separately. The proposals approved by SMC will be considered for scheduling during the first observing year of EP, which is expected to begin approximately 6 months after launch. This call is open to EP STP members and associate members, as well as non-STP members as EP Guest Observer (GO) program (open to users based mainly at Chinese institutions only for this Cycle-1).

All the Cycle-1 information can be found on the following EP Observing Proposal System (EOPS) website, including proposer's guidance, proposal-supporting documents, tools and access to the EP proposal submission interface.

EOPS website: [https://ep.bao.ac.cn/ep/proposal\\_submit/user\\_proposal\\_create\\_guide](https://ep.bao.ac.cn/ep/proposal_submit/user_proposal_create_guide)



# Cycle-1 Proposals

- **Cycle-1 proposal statistics:**
- **Total number of proposals received in Cycle-1: 105 proposals**
- **CAS:** 70 FSTO + 10 GO (received, before review), **MPE:** 8 proposals, **ESA:** 7 proposals, **CNES:** 11 proposals

<b>FSTO+ToO</b>	<b>5 Ms</b>
	MPE: <b>500 ks</b> , ESA: <b>500 ks</b> , CNES: <b>250 ks</b>
	CAS: <b>3.75 Ms</b>
	CAS Science Team: <b>2.6 Ms</b> (70%) EPSC guarantee time: <b>1.1 Ms</b> (30%)
<b>Guest Observation</b>	<b>100 ks</b>

\*estimated obs time per year~20 Ms

# Cycle-1 Proposals

- **Cycle-1 proposal statistics (for the CAS side):**

**CAS Time to be allocated: 3.75 Ms, ~0.94 Ms for each STP**

STP	Proposal No.	Source No.	Obs Time Requested	Oversubscription Factor
<b>1</b>	25 (1)	237 (56)	2.94 Ms (27 ks)	<b>3.1</b>
<b>2</b>	3 (1)	10 (2)	0.23 Ms (11 ks)	<b>0.3</b>
<b>4</b>	29 (13)	460 (239)	10.45 Ms (3.51 Ms)	<b>11.2</b>
<b>5</b>	13 (2)	241 (17)	3.86 Ms (83 ks)	<b>4.1</b>
<b>GO</b>	10 (1)	86 (53)	2.04 Ms (22 ks)	<b>20.4</b>
<b>Sum</b>	<b>80 (18)</b>	<b>1034 (367)</b>	<b>19.52 Ms (3.7 Ms)</b>	<b>5.2</b>

\*inside bracket: anticipated-ToO

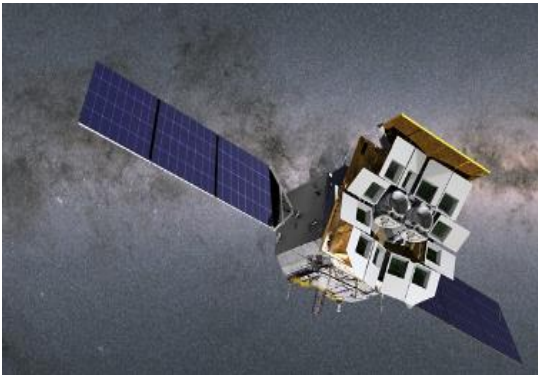
# Cycle-1 Proposals

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- **Cycle-1 proposal statistics:**

## Comparison of Oversubscription Factors:

**5.2 in Cycle-1 (CAS)**



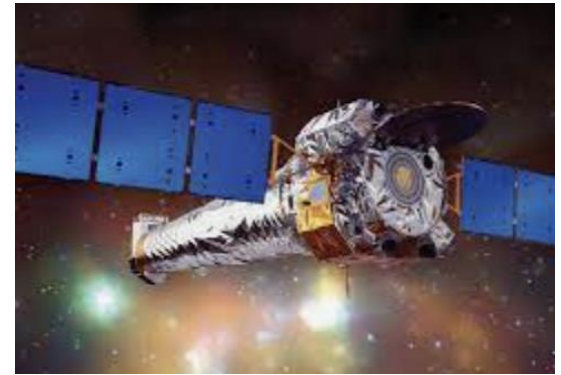
Einstein Probe

**6.3 in AO-23**



XMM-Newton

**5.3 in Cycle-23**



Chandra

- **Cycle-1 following work:**
  - Resolving overlapping proposals
  - Announcement of Cycle-1 result in May

# EP Observing Proposals

- **EP Proposal Submission Page:**
- **Webpage:** [https://ep.bao.ac.cn/ep/proposal\\_submit/user\\_proposal\\_create\\_guide](https://ep.bao.ac.cn/ep/proposal_submit/user_proposal_create_guide)

The screenshot shows the website for the Einstein Probe (EP) Observing Proposal System (EOPS). The header features the logo and name '爱因斯坦探针 einstein probe' on the left, and navigation icons for notifications, user profile, and messages on the right. A dark navigation bar contains the following menu items: Home, Mission, News, Consortium, WXT, FXT, User Support, Proposal, Activities, and Publications. The main content area is titled 'EP Observing Proposal System (EOPS)' and contains three sections:

- EP Observing Proposal Cycle-1: STP Observer Program** (with a [Proposer's Guidance](#) link). The text states: "STP Observer Program, including non-ToO observations and anticipated-ToO for known sources, opens to STP Member and Associate Member only. Please read the proposer's guidance carefully before submitting a proposal." A button labeled "My proposal list" is located at the bottom right of this section.
- EP Observing Proposal Cycle-1: Guest Observer (GO) Program** (with a [Proposer's Guidance](#) link). The text states: "Guest Observer (GO) Program, including non-ToO observations and anticipated-ToO for known sources, opens to non-STP proposers whose primary affiliations are in China. Please read the proposer's guidance carefully before submitting a proposal."
- ToO and DDT observations** (with a [Proposer's Guidance](#) link).



**Thank You!**

