

慧眼卫星第二轮观测提案征集公告

各位天文届同仁：

慧眼卫星第二轮观测提案的征集即将开始，特此邀请各位提交观测提案申请慧眼卫星的观测时间。

“慧眼”硬 X 射线调制望远镜 (*Insight-HXMT*) 卫星 (以下简称慧眼卫星) 是我国第一颗 X 射线天文卫星，已于 2017 年 6 月 15 日发射升空，目前运行良好。它主要包括 3 种有效载荷，高能望远镜 (20–350 keV, 5100 cm²)，中能望远镜 (8–35 keV, 952 cm²) 和低能望远镜 (1–12 keV, 384 cm²)。慧眼卫星的主要科学目包括：(1) 通过对银道面、银心和核球的大天区扫描巡天和监测，发现新的高能变源和已知高能天体的新活动；(2) 通过对河内黑洞和中子星进行长期高频次监测，理解黑洞和中子星系统的活动和演化机制；通过对高流强河内黑洞和中子星进行高统计量观测，理解吸积黑洞和中子星系统的基本性质；(3) 利用其扩展到 200 keV–3 MeV 能段的全天监视观测能力，获得新的伽马射线暴及其它爆发现象的能谱和时变观测数据，理解高能剧烈爆发天体的基本属性，研究宇宙深处大质量恒星的死亡以及中子星并合等过程中黑洞的形成。更详细的信息请参见慧眼卫星观测计划征集白皮书：

(<http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/339-whitebook2>, 中文版。)

本轮观测提案征集的主要时间节点 (以下均为北京时间)：

观测提案征集开始时间：2019 年 1 月 1 日

观测提案征集截止时间：2019 年 3 月 15 日

观测提案评审结果发布时间：2019 年 3 月 31 日

本轮提案观测正式开始时间：2019 年 4 月 1 日

本轮提案观测计划结束时间：2020 年 3 月 31 日

几点说明：

(1) 本次共征集 12 兆秒的有效观测时间。其中核心观测提案占 60%，客座提

案占 40%。

- (2) 核心观测提案由各核心工作组在组内讨论确定后，由组长统一提交。在数据保护期内（除非特别申请，一般为一年），数据使用权在该核心工作组内共享。
- (3) 核心科学组成员可以以个人名义提交客座观测提案，按照客座观测提案数据政策执行。
- (4) 涉及到银道面扫描观测、本底观测及标定观测的提案为核心观测提案，暂不开放为客座提案。
- (5) 多波段联合观测是指慧眼卫星联合地面望远镜或者其他在轨卫星联合观测目标天体。申请人可以申请多波段联合观测的观测提案，并在申请获批后负责协调各个设备的观测时间。
- (6) 设置“博士生研究计划”，常规观测中 20%的数据可申请数据保护，用于博士生毕业论文研究选题。由核心工作组中的博士生导师在申请书中提出数据保护申请及保护期限，获批准的数据在保护期内不公开发布。
- (7) To0 观测数据也可申请数据保护，如获批准，数据保护期为 3 个月。未申请或未批准的 To0 观测数据立即发布。
- (8) 国内外科学家均可提交客座观测提案申请（支持中英文）。建议国外提案人和中国国内合作者联合申请。

一些有用的链接：

提案征集网站（需要注册） <http://proposal.ihep.ac.cn/proposal/index.jspx>

观测时间估计： <http://proposal.ihep.ac.cn/calc/calc.jsp>

目标天体的可见性： <http://proposal.ihep.ac.cn/soft/soft1.jspx>

视场附近亮源情况估计： <http://proposal.ihep.ac.cn/soft/soft2.jspx>

能谱模拟分析工具： <http://proposal.ihep.ac.cn/soft/soft.jspx>

提案提交说明： <http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/143-2016-06-16-11-17-56>

提案的科学意义附件模板： <http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/144-2016-06-17-06-50-50>

已观测天体源列表：<http://newshxmt.ihep.ac.cn/index.php/plan/oklist>

数据政策：<http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/319-hxmt-data-policy-of-hxmt>

慧眼卫星核心团队组成及论文署名规则：

<http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/320-hxmt-the-composition-duties-and-rights-of-the-hxmt-core-scientific-team>

感谢您对慧眼天文卫星科学观测的支持和兴趣！

慧眼卫星首席科学家张双南

慧眼卫星科学中心

2019年1月1日

Insight-HXMT Announcement of Opportunity for AO-2 Cycle Observation Proposals

Dear colleagues,

I am pleased to invite you to respond to the 2nd “Announcement of Opportunity” by submitting proposals for observations with the *Insight*-HXMT satellite.

The *Insight*-HXMT is China's first X-ray satellite. It was launched on 15th June 2017 and is currently in service smoothly. There are three main payloads onboard *Insight*-HXMT, the high energy X-ray telescope (20-350 keV, 5100 cm²), the medium energy X-ray telescope (8-35 keV, 952 cm²), and the low energy X-ray telescope (1-12 keV, 384 cm²). The main scientific objectives of *Insight*-HXMT are: (1) to scan the Galactic Plane to find new transient sources and to monitor the known variable sources; (2) to observe X-ray binaries to study the dynamics and emission mechanism in strong gravitational or magnetic fields; and (3) to find and study gamma-ray bursts with its anti-coincidence CsI detectors. More details can be found in the white book:

(<http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/339-whitebook2>, Chinese version).

The key milestones for this announcements (UTC-8) :

Begin time: Jan. 1, 2019

Deadline: Mar. 15, 2019

Final approved programme: Mar. 31, 2019

Start of AO-2 Observations: Apr. 1, 2019

Planned end of AO-2 Observations: Mar. 31, 2020

Note:

(1) 12 Ms observation time in total is available in this announcement, among which 60% is for core proposals and 40% is for guest proposals.

(2) The core proposals are submitted only by the core science group leaders, which should be discussed and determined in the group. Data rights are shared within the

core science group members during the data protection period.

(3) The core science group members may submit the guest proposals, and follow the data policy of guest proposals.

(4) Proposals about the Galactic Plane scan, background observation and calibration observation are only open to the core science group now.

(5) Joint Proposals are open to coordinate observations with other ground telescopes or satellites. Once approved, the proposer should coordinate the observation time of different devices.

(6) “PhD Research Program”: 20% of the data in the regular observations can be protected for PhD research. The PhD advisors in the core science groups may apply for the data protection for specified periods in the proposals. If approved, the data will not be released publicly during the protection periods.

(7) ToO data can also be applied for protection. If approved, the data protection period should be three months. Otherwise, ToO data will be released immediately.

(8) Both domestic and international scientists can submit guest proposals (in Chinese or English). It is recommended that international proposers collaborate with some domestic scientists in submitting proposals.

Other useful links:

Submitting via the website (registration needed):

<http://proposal.ihep.ac.cn/proposal/index.jspx>

Observation time estimator: <http://proposal.ihep.ac.cn/calc/calc.jsp>

Target Visibility Predictor: <http://proposal.ihep.ac.cn/soft/soft1.jspx>

Bright source warning tool: <http://proposal.ihep.ac.cn/soft/soft2.jspx>

Spectrum simulation tool: <http://proposal.ihep.ac.cn/soft/soft.jspx>

Instructions for proposal submission: <http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/143-2016-06-16-11-17-56>

Scientific attachment template: <http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/144-2016-06-17-06-50-50>

List of Sources observed: <http://newshxmt.ihep.ac.cn/index.php/plan/oklist>

Data Policy: <http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/319-hxmt-data-policy-of-hxmt>

Insight-HXMT core team composition and paper signature rules:

<http://newshxmt.ihep.ac.cn/index.php/2013-03-22-08-08-48/docs/320-hxmt-the-composition-duties-and-rights-of-the-hxmt-core-scientific-team>

Yours sincerely,

Prof. Shuang Nan Zhang, PI of *Insight*-HXMT

Insight-HXMT Science Center

Jan. 1, 2019