

The selected proposals with approved observations:

(1) Core proposals

Title	The blank sky observations for the background research of Insight-HXMT				
ABSTRACT	<p>对于空天区的观测，是慧眼-HXMT 最重要的常规观测之一。其数据，将用于慧眼卫星的本底，标定，以及弥散辐射的研究。我们根据国际上其他卫星的观测，找出了 16 个空白天区，其特点是流量，谱形稳定。在本底构建方面，空天区的观测数据可以为高中低能三个载荷提供实测数据，开展本底的相关研究，以构建本底模型。在仪器标定方面，载荷自身的本底谱线，在空天区观测中具有最高的显著性，可用于能量-能道关系的监测和标定。在 高能宇宙弥散背景方面，地球掩蚀前后的空天区观测数据的差异，是由弥散 X 射线导致。因此，空天区的观测对于高能宇宙弥散辐射同样意义重大。</p>				
Special requirement					
Obs No.	Target	Exp. Duration (ks)	Grade	ToO?	Note

P0901062	HXMT-Blanksky-21	130	A	NO	
P0901063	HXMT-Blanksky-20	130	A	NO	
P0901064	HXMT-Blanksky-19	130	A	NO	
P0901065	HXMT-Blanksky-16	130	A	NO	
P0901066	HXMT-Blanksky-15	130	A	NO	
P0901067	HXMT-Blanksky-14	130	A	NO	
P0901068	HXMT-Blanksky-12	130	A	NO	
P0901069	HXMT-Blanksky-11	130	A	NO	

P0901070	HXMT-Blanksky-10	130	A	NO	
P0901071	HXMT-Blanksky-8	130	A	NO	
P0901072	HXMT-Blanksky-6	130	A	NO	
P0901073	HXMT-Blanksky-5	130	A	NO	
P0901074	HXMT-Blanksky-4	130	A	NO	
P0901075	HXMT-Blanksky-3	130	A	NO	
P0901076	HXMT-Blanksky-2	130	A	NO	
P0901077	HXMT-Blanksky-1	130	A	NO	

Title	Joint Survey of Galactic plane by Insight-HXMT and EP/WXT				
ABSTRACT	在慧眼-HXMT 先前的银道面扫描巡天中，慧眼-HXMT 发现了许多短时标的信号，但是仅用慧眼-HXMT 很难识别。慧眼-HXMT 和 EP/WXT 对银道面的联合巡天，综合慧眼-HXMT（大有效面积、宽频带）和 EP/WXT（高灵敏度、高角度分辨率）的优势，可以帮助我们探索这些短时标信号的起源。在这个方案中，慧眼-HXMT 将在 EP/WXT 的定点观测期间，同时对银道面的同一区域进行扫描观测。				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration (ks)	Grade	ToO?	Note
P0901078	SAS_082811-383858_7.00	—	A	NO	
P0901079	SAS_082055-363620_7.00	—	A	NO	
P0901080	SAS_081401-343208_7.00	—	A	NO	

P0901081	SAS_080727-322633_7.00	—	A	NO	
P0901082	SAS_080112-301944_7.00	—	A	NO	
P0901083	SAS_075512-281152_7.00	—	A	NO	
P0901084	SAS_074927-260303_7.00	—	A	NO	
P0901085	SAS_074354-235325_7.00	—	A	NO	
P0901086	SAS_073832-214303_7.00	—	A	NO	
P0901087	SAS_073319-193204_7.00	—	A	NO	
P0901088	SAS_072815-172032_7.00	—	A	NO	

P0901089	SAS_072318-150832_7.00	—	A	NO	
P0901090	SAS_071828-125608_7.00	—	A	NO	
P0901091	SAS_071342-104325_7.00	—	A	NO	
P0901092	SAS_070901-083025_7.00	—	A	NO	
P0901093	SAS_070422-061713_7.00	—	A	NO	
P0901094	SAS_065947-040352_7.00	—	A	NO	
P0901095	SAS_065512-015025_7.00	—	A	NO	
P0901096	SAS_065039+002303_7.00	—	A	NO	

P0901097	SAS_064605+023632_7.00	—	A	NO	
P0901098	SAS_064130+044958_7.00	—	A	NO	
P0901099	SAS_063653+070316_7.00	—	A	NO	
P0901100	SAS_063214+091624_7.00	—	A	NO	
P0901101	SAS_062731+112918_7.00	—	A	NO	
P0901102	SAS_062244+134156_7.00	—	A	NO	
P0901103	SAS_061751+155411_7.00	—	A	NO	
P0901104	SAS_061252+180602_7.00	—	A	NO	

P0901105	SAS_060745+201724_7.00	—	A	NO	
P0901106	SAS_060230+222810_7.00	—	A	NO	
P0901107	SAS_055704+243818_7.00	—	A	NO	
P0901108	SAS_055127+264740_7.00	—	A	NO	
P0901109	SAS_054537+285610_7.00	—	A	NO	
P0901110	SAS_053932+310341_7.00	—	A	NO	
P0901111	SAS_053310+331005_7.00	—	A	NO	
P0901112	SAS_052630+351512_7.00	—	A	NO	

P0901113	SAS_051929+371854_7.00	—	A	NO	
P0901114	SAS_051204+392056_7.00	—	A	NO	
P0901115	SAS_050413+412106_7.00	—	A	NO	
P0901116	SAS_045552+431909_7.00	—	A	NO	
P0901117	SAS_044658+451446_7.00	—	A	NO	
P0901118	SAS_043727+470737_7.00	—	A	NO	
P0901119	SAS_042714+485717_7.00	—	A	NO	
P0901120	SAS_041616+504319_7.00	—	A	NO	

P0901121	SAS_040428+522512_7.00	—	A	NO	
P0901122	SAS_035144+540220_7.00	—	A	NO	
P0901123	SAS_033759+553400_7.00	—	A	NO	
P0901124	SAS_032311+565927_7.00	—	A	NO	
P0901125	SAS_030715+581751_7.00	—	A	NO	
P0901126	SAS_025009+592816_7.00	—	A	NO	
P0901127	SAS_023155+602944_7.00	—	A	NO	
P0901128	SAS_021235+612118_7.00	—	A	NO	

P0901129	SAS_015217+620201_7.00	—	A	NO	
P0901130	SAS_013111+623106_7.00	—	A	NO	
P0901131	SAS_010932+624756_7.00	—	A	NO	
P0901132	SAS_004738+625206_7.00	—	A	NO	
P0901133	SAS_002548+624332_7.00	—	A	NO	
P0901134	SAS_000419+622225_7.00	—	A	NO	
P0901135	SAS_234328+614914_7.00	—	A	NO	
P0901136	SAS_232329+610440_7.00	—	A	NO	

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P0901138	SAS_224640+590454_7.00	—	A	NO	
P0901139	SAS_222959+575137_7.00	—	A	NO	
P0901140	SAS_221426+563041_7.00	—	A	NO	
P0901141	SAS_220000+550259_7.00	—	A	NO	
P0901142	SAS_214637+532921_7.00	—	A	NO	
P0901143	SAS_213413+515030_7.00	—	A	NO	
P0901144	SAS_212242+500707_7.00	—	A	NO	

P0901145	SAS_211201+481946_7.00	—	A	NO	
P0901146	SAS_210203+462857_7.00	—	A	NO	
P0901147	SAS_205245+443507_7.00	—	A	NO	
P0901148	SAS_204403+423837_7.00	—	A	NO	
P0901149	SAS_203553+403948_7.00	—	A	NO	
P0901150	SAS_202811+383858_7.00	—	A	NO	
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P0901167	SAS_185512+015025_7.00	—	A	NO	
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P0901169	SAS_184605-023632_7.00	—	A	NO	
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P0901171	SAS_183653-070316_7.00	—	A	NO	
P0901172	SAS_183214-091624_7.00	—	A	NO	
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P0901193	SAS_122931-574448_7.00	—	A	NO	
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P0901204	SAS_081410-253146_7.00	—	A	NO	
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P0901206	SAS_075138-170333_7.00	—	A	NO	
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P0901208	SAS_073136-082224_7.00	—	A	NO	

P0901209	SAS_072211-035836_7.00	—	A	NO	
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P0901211	SAS_070356+045252_7.00	—	A	NO	
P0901212	SAS_065453+091941_7.00	—	A	NO	
P0901213	SAS_064545+134640_7.00	—	A	NO	
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P0901231	SAS_224548+644010_7.00	—	A	NO	
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P0901260	SAS_160117-592822_7.00	—	A	NO	
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P0901262	SAS_144950-650335_7.00	—	A	NO	
P0901263	SAS_140409-665206_7.00	—	A	NO	
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P0901268	SAS_100800-620223_7.00	—	A	NO	
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P0901270	SAS_091027-552331_7.00	—	A	NO	
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P0901272	SAS_082956-473859_7.00	—	A	NO	

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P0901275	SAS_074654-350225_7.00	—	A	NO	
P0901276	SAS_073518-304140_7.00	—	A	NO	
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P0901284	SAS_061904+044418_7.00	—	A	NO	
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P0901286	SAS_055945+132914_7.00	—	A	NO	
P0901287	SAS_054924+174803_7.00	—	A	NO	
P0901288	SAS_053824+220332_7.00	—	A	NO	

P0901289	SAS_052635+261451_7.00	—	A	NO	
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P0901291	SAS_045938+342035_7.00	—	A	NO	
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P0901299	SAS_014341+570910_7.00	—	A	NO	
P0901300	SAS_010654+574834_7.00	—	A	NO	
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P0901302	SAS_235300+565809_7.00	—	A	NO	
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P0901316	SAS_193136+082224_7.00	—	A	NO	
P0901317	SAS_192211+035836_7.00	—	A	NO	
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P0901324	SAS_181630-270404_7.00	—	A	NO	
P0901325	SAS_180537-312655_7.00	—	A	NO	
P0901326	SAS_172947-294228_7.00	—	A	NO	
P0901327	SAS_172318-314654_7.00	—	A	NO	
P0901328	SAS_171631-334954_7.00	—	A	NO	

P0901329	SAS_170922-355116_7.00	—	A	NO	
P0901330	SAS_170151-375047_7.00	—	A	NO	
P0901331	SAS_165353-394814_7.00	—	A	NO	
P0901332	SAS_164526-414320_7.00	—	A	NO	
P0901333	SAS_163627-433547_7.00	—	A	NO	
P0901334	SAS_162652-452513_7.00	—	A	NO	
P0901335	SAS_161639-471115_7.00	—	A	NO	
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P0901641	SAS_124738-625206_7.00	—	A	NO	
P0901642	SAS_122548-624332_7.00	—	A	NO	
P0901643	SAS_120419-622225_7.00	—	A	NO	
P0901644	SAS_114328-614914_7.00	—	A	NO	
P0901645	SAS_112329-610440_7.00	—	A	NO	

P0901646	SAS_110431-600934_7.00	—	A	NO	
P0901647	SAS_104640-590454_7.00	—	A	NO	
P0901648	SAS_102959-575137_7.00	—	A	NO	
P0901649	SAS_101426-563041_7.00	—	A	NO	
P0901650	SAS_100000-550259_7.00	—	A	NO	
P0901651	SAS_094637-532921_7.00	—	A	NO	
P0901652	SAS_093413-515030_7.00	—	A	NO	
P0901653	SAS_092242-500707_7.00	—	A	NO	

P0901654	SAS_091201-481946_7.00	—	A	NO	
P0901655	SAS_090203-462857_7.00	—	A	NO	
P0901656	SAS_085245-443507_7.00	—	A	NO	
P0901657	SAS_084403-423837_7.00	—	A	NO	
P0901658	SAS_083553-403948_7.00	—	A	NO	
Title	致密天体高能辐射性质研究				
ABSTRACT	核心提案基于慧眼的宽波段观测优势，以及目前慧眼已经积累的观测数据，在宽能区研究致密天体高能辐射性质，在爆发源和持续亮源等方面预期开展一系列的观测和研究，具体包括：X 射线双星爆发的时变、能谱以及态演化的研究；与大质量 X 射线双星爆发有关的极冠区的吸积辐射机制、辐射区几何以及回旋吸收研究；热核暴探针研究；Z 和 atoll 源的演化研究。提案包括常规的定点观测、ToO 观测和爱因斯坦				

	探针-慧眼的联合观测，这些观测一部分作为已有慧眼相关源研究的观测补充，也可能通过 ToO 观测给出新现象的发现。观测的实施将有助于推进不同类型 X 射线双星的辐射机制等方面的研究。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904662	Monitor Cyg X-1	170	B	NO	
P0904663	TOO Cyg X-1	360	B	YES	
P0904664	MXB 1730-33	300	A	YES	
P0904665	Aql_X-1	300	B	YES	
P0904666	4U_1636-53	300	A	YES	

P0904667	4U_1608-52	300	B	YES	
P0904668	GX_9+01	100	A	YES	
P0904669	GX_3+01	100	A	YES	
P0904670	Cyg_X-2	300	A	YES	
P0904671	Cir_X-1	200	A	YES	
P0904672	XTE_J1701-462	1000	A	YES	
P0904673	XTE_J0658-073	1200	A	YES	
P0904674	GRO_J2058+42	1200	A	YES	

P0904675	RX_J0440.9+4431	1200	A	YES	
P0904676	4U_1901+03	1200	B	YES	
P0904677	Ginga_0834-430	1200	A	YES	
P0904678	GRO_J1750-27	1200	B	YES	
P0904679	KS_1947+300	1200	A	YES	
P0904680	2S_1417-624	1200	B	YES	
P0904681	4U_0115+634	1200	B	YES	
P0904682	1A_1118-615	1200	A	YES	

P0904683	1A_0535+26	1200	B	YES	
P0904684	GRO_J1008-57	1200	B	YES	
P0904685	EXO_0331+530	1200	A	YES	
P0904686	EXO_2030+375	1200	A	YES	
P0904687	GRO_J1744-28	1200	A	YES	
P0904688	4U_1700-377	1200	A	YES	
P0904689	SWIFT_J0243.6+6124	1200	B	YES	
P0904690	4U_1907+09	1200	A	YES	

P0904691	XTE_J1829-098	1200	A	YES	
P0904692	4U_1822-371	1200	A	YES	
P0904693	IGR_J18027-2016	1200	A	YES	
P0904694	IGR_J17544-2619	1200	A	YES	
P0904695	IGR_J16393-4643	1200	A	YES	
P0904696	SWIFT_J1626.6-5156	1200	A	YES	
P0904697	4U_2206+54	1200	A	YES	
P0904698	GX_304-01	1200	A	YES	

P0904699	SWIFT_J1845.6+0051	1200	A	YES	
P0904700	XMMU_J054134.7-682550	1200	A	YES	
P0904701	4U_1908+075	1200	A	YES	
P0904702	3A_0114+650	1200	A	YES	
P0904703	2S_1553-542	1200	A	YES	
P0904704	MAXI_J1409-619	1200	A	YES	
P0904705	SWIFT_J0513.4-6547	1200	A	YES	
P0904706	Cep_X-4	1200	A	YES	

P0904707	2S_1845-024	1200	A	YES	
P0904708	IGR_J18179-1621	1200	A	YES	
P0904709	RX_J0209.6-7427	1200	B	YES	
P0904710	SAX_J2103.5+4545	1200	A	YES	
P0904711	XTE_J1946+274	1200	B	YES	
P0904712	XTE_J1858+034	1200	A	YES	
P0904713	IGR_J19294+1816	1200	B	YES	
P0904714	GX_1+04	1200	A	YES	

P0904715	4U_1538-52	1200	A	YES	
P0904716	4U_1626-67	1200	A	YES	
P0904717	Her_X-1	1200	A	YES	
P0904718	Cen_X-3	100	B	YES	
P0904719	GX_301-02	200	B	YES	
P0904720	Vela_X-1	200	A	YES	
P0904721	GRS_1915+105	170	B	YES	
P0904722	Cyg_X-3	170	B	YES	

P0904723	Cyg X-1	360	A	YES	
P0904724	SWIFT_J1728.9-3613	1500	A	YES	
P0904725	H_1743-322	1500	B	YES	
P0904726	XTE_J1752-223	1500	A	YES	
P0904727	EXO_1846-031	1500	A	YES	
P0904728	XTE_J1650-500	1500	A	YES	
P0904729	V404_Cyg	1500	A	YES	
P0904730	4U_1630-472	1500	A	YES	

P0904731	4U_1543-47	1500	B	YES	
P0904732	XTE_J1817-330	1500	B	YES	
P0904733	XTE_J1859+226	1500	B	YES	
P0904734	GX_339-04	1500	B	YES	
P0904735	MAXI_J1631-479	1500	B	YES	
P0904736	MAXI_J1348-630	1500	A	YES	
P0904737	XTE_J1550-564	1500	B	YES	
P0904738	GRO_J1655-40	1500	B	YES	

P0904739	new source 3	600	A	YES	
P0904740	MAXI_J1535-571	1500	B	YES	
P0904741	new source 2	600	A	YES	
P0904742	new source 1	600	A	YES	
P0904743	MAXI_J1820+070	1500	A	YES	
Title	The joint observations of ten bright magnetars between Insight-HXMT and EP-FXT				
ABSTRACT	<p>The mechanism of burst activities and FRBs from magnetars remains uncertain, and continuous monitoring observations are essential for investigating between burst activities or FRBs and glitches, spin-down events, and spin anomalies. We propose to monitor the spin evolution and detect the activities of 10 bright magnetars with the cadency of one observation every one month, and make EP-FXT follow-up observations of the most interesting magnetar activities. We propose the joint observations between Insight-HXMT and EP-FXT after the burst trigger of each magnetar.</p>				

Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904763	1E 1547.0-5408	160	B	YES	
P0904764	XTE J1810–197	160	B	YES	
P0904765	SGR 1900+14	160	B	YES	
P0904766	SGR 0501+4516	160	B	YES	
P0904767	1E 1048.1-5937	160	B	YES	
P0904768	1E 2259+586	160	B	YES	

P0904769	1E 1841-045	160	B	YES	
P0904770	1RXS J170849.0-400910	160	B	YES	
P0904771	4U 0142+61	160	B	YES	
P0904772	SGR 1935+2154	160	B	YES	

(2) Guest proposals

Title	Investigation of rapid-proton capture process path of Type-I X-ray bursts	PI	Prof.Yi HuaLam
ABSTRACT	<p>4U 1636-536 is a low-mass X-ray binary generating photospheric radius expansion (PRE) and non-PRE type-I X-ray bursts. With the capability of generating both classes of bursts, the burster provides a testing ground for us to study the correlation and evolution of persistent flux, accretion rate, and recurrence time. Also, with these key observables, we can construct and constrain state-of-the-art type-I X-ray burst models closely reconciling with observations, allowing us to understand the correlation and to solve the puzzle of how non-PRE and PRE bursts coexist in a series of bursts, and</p>		

	<p>importantly, how the key signature of elemental abundances of burst ashes manifests. To perceive the correlation and to construct X-ray burst models, we propose a 220 ks observation for X-ray bursts in 4U 1636-536 by Insight-HXMT to measure the persistent flux, recurrence times and other parameters of both non-PRE and PRE bursts. Meanwhile, we incorporate the Insight-HXMT observation and construction of X-ray burst models with the X-ray line observation by XRISM to detect absorption lines from burst ashes, indicating the signatures of elements at nuclear regions around calcium-40 and heavier than iron-52. The incorporation of Insight-HXMT, XRISM, and state-of-the-art X-ray burst models, will reveal the first astronomical evidence of the existence of rapid-proton capture process path</p>				
Special requirement	The data can be protected for the “PhD Research Program”.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0903744	4U 1636-53	220	B	NO	
Title	A multiwavelength campaign targeting the nearby periodic repeater FRB 20180916B			PI	Prof.Cristiano Guidorzi

ABSTRACT	<p>"Fast Radio Bursts (FRBs) are radio bright, ms-long extragalactic transients of unknown origin that are the focus of a global multi-wavelength (MWL) community. Among the most promising candidates, magnetars occasionally undergo bursting high-energy activity that can be in excess of 10^{47} erg/s during the subsecond peak of a giant flare. The discovery of Galactic low-energy FRB20200428 emitted by SGR1935+2154 simultaneously with an X-ray burst provided further evidence for the magnetar-FRB connection. Among the ~ 60 FRB repeaters currently known, not only is FRB20180916B one of the only two periodic sources (period of 16.33 ± 0.12 days), but at 149 Mpc it still ranks in the top nearest ones with measured distance. While no emission other than radio has been unambiguously associated with extragalactic FRBs yet, only an extensive coordinated MWL monitoring of FRB20180916B during the expected radio burst active windows, which builds on and extends the past campaigns, can fully characterise a possible high energy source activity and try to identify the emission mechanism(s) among these several proposed. We aim to accomplish our MWL coverage by extending the coverage around peak activity windows, that would complement the campaigns that we carried out in AO3 to AO8."</p>				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0903786	FRB_20180916B	510	A	NO	

Title	利用慧眼-HXMT 和 LHAASO 联合观测研究 Cyg X-3 超高能辐射性质			PI	Dr.XiangMa
ABSTRACT	<p>申请人拟利用慧眼 HXMT 和 LHAASO 对 Cyg X-3 进行联合观测，研究其宽能段和超高能的辐射性质。LHAASO 观测到了来自 Cyg X-3 方向的超高能伽马射线时变信号，该信号与 X 射线波段辐射可能存在关联，因此通过多波段数据联合分析，可以深入研究高能粒子的辐射和加速机制。X 射线双星是探索强引力下物理过程的重要工具，是慧眼的主要科学目标之一，Cyg X-3 是典型的 X 射线双星，慧眼已经对其进行观测，并取得了研究成果。本提案计划在 Cyg X-3 不同态期间，利用慧眼与 LHAASO 进行同时性的监测观测，可以帮助我们更好理解超高能辐射来源以及与态之间的关系。</p>				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0903907	Cyg X-3	200	A	NO	

Title	基于慧眼和光学望远镜等多波段观测研究再发新星 T CrB 的暴发和辐射机制			PI	Dr. Xian Hou
ABSTRACT	<p>申请人拟利用慧眼卫星，联合云南天文台丽江 2.4 米望远镜和中法天文卫星 SVOM)，对再发新星 TCrB 下一次的暴发(预计 2026-2027 年)进行多波段协同观测，结合高能 Fermi-LAT 实时公开的伽马射线数据，研究暴发期间的多波段辐射性质，从而全面地了解 TCrB 新星暴发的物理过程。提案类型为 ToO，触发标准为 Swif/BAT、MAXI 或 EP-WXT 流量大于 100mCrab。利用慧眼定点观测模式，本提案可获得宽能段、高时间分辨率、良好能量分辨率的高统计性和高频次观测数据，尤其是在高能段，慧眼具有其它 X 射线卫星无法比拟的独特优势。TCrB 的暴发周期大约为 80 年，由于其历史暴发尚未有 X 射线和伽马射线卫星观测(1866 年和 1946 年)，此次将第一次获得对 TCrB 的全波段高频次的暴发观测数据。由于其距离不到 1kpc，它将在短时间内成为有史以来在 X 射线观测到的最亮的新星。</p>				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904746	V* T CrB	1000	A	YES	

Title	基于慧眼和丽江 2.4 米光学望远镜联合观测研究 X 射线吸积脉冲星 磁场及光学性质	PI	Dr.Xian Hou
ABSTRACT	<p>申请人拟利用慧眼观测数据系统地大质量 X 射线吸积脉冲星爆发过程的不同阶段进行脉冲最高能量搜索，通过比较爆发过程中不同光度下的高低能脉冲来确定是否发生了由铅笔型模式主导到风扇型模式主导的转变，确定转变时的临界光度 L_{crit}，从而来更好地估算中子星的磁场。提案类型为 ToO，触发标准为 Swif/BAT 或 MAXI 流量大于 100mCrab，其中最弱的三颗源触发流量为 50mCrab。X 射线吸积脉冲星是慧眼的重点和长期观测对象。利用慧眼定点观测模式，本提案可获得宽能段、高时间分辨率、良好能量分辨率的高统计性和高频次观测数据，尤其是在高能段，慧眼具有其它 X 射线卫星无法比拟的独特优势，是目前唯一可以进行脉冲最高能量搜索的在轨卫星。申请人拟利用云南天文台丽江 2.4 米望远镜及其它地面光学望远镜对爆发进行联合观测，研究 L_{crit} 前后吸积盘的性质，以及 X 射线辐射对伴星的影响。</p>		
Special requirement	Coordinated observations		

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904747	RX J0209.6-7427	600	A	YES	
P0904748	IGR J19294+1816	600	A	YES	
P0904749	XTE J1946+274	600	A	YES	
P0904750	4U 1901+03	600	A	YES	
P0904751	GRO 1750-27	600	A	YES	
P0904752	Cen X-3	600	A	YES	
P0904753	2S 1417-624	600	A	YES	

P0904754	4U 0115+63	600	A	YES	
P0904755	OA0 1657-415	600	A	YES	
P0904756	GRO J1008-57	600	A	YES	
P0904757	GX 301-2	600	A	YES	
P0904758	Vela X-1	600	A	YES	
P0904759	Swift J0243.6+6124	600	A	YES	
P0904760	1A 0535+262	600	A	YES	
Title	II 型 X 射线暴的观测研究			PI	Dr.LongJi

ABSTRACT	MXB 1730-33 与 GRO J1744-28 是低质量 X 射线双星系统，在它们进入爆发态的时候，表现出具有复杂现象学的 II 型 X 射线暴，其物理机制未知。目前对 II 型暴的研究主要依赖于以往在 outburst 下降阶段的观测，而对 outburst 上升阶段的观测甚少。我们申请慧眼卫星的 ToO 观测，即当该源处于活动状态时（通过 EP 触发，流量大于 10mCrab），每 2 天进行 10ks 的观测，共进行 10 次观测。通过对目标源上升阶段的观测，我们将研究 II 型暴的形态（尤其在 outburst 上升阶段），并研究其与连续谱的关系，限制 II 型暴产生的物理机制。				
Special requirement	Data of one source can be protected for the “PhD Research Program”.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904761	MXB 1730-33	100	B	YES	
P0904762	GRO J1744-28	100	B	YES	

Title	Measuring the Broad Band X-ray Emission of Millisecond X-Ray Pulsars in Outburst			PI	Prof.ZhaoshengLi
ABSTRACT	<p>We propose to perform thirty 50 ks HXMT target of opportunity (ToO) observations of a transient millisecond X-ray pulsar in outburst. The target can be either one of the twenty-one known transient accreting millisecond X-ray pulsars (AMXPs) under going a new outburst, or a “newly” discovered object of this class. These observations will allow us to study the broad band spectrum in detail, from hard to soft X-ray energies, as well as the timing properties or eclipsing features of the source during its outburst. The high signal-to-noise spectral information will make it possible to disentangle the contributions of soft black body, reflection (if any), and hard Comptonized spectral components. Moreover, we may detect type-I X-ray bursts, and/or for the first time also burst oscillations at high-energy (if present). The observations will also allow a timing analysis to study the pulse profile, time lags and pulsed spectrum, and will thus provide important constraints on emission mechanisms.</p>				
Special requirement	One of the following sources will be triggered if scientifically justified.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0904774	XTE J0929-314	1500	A	YES	
P0904775	XTE J1751-305	1500	A	YES	
P0904776	SAX J1808.4-3658	1500	A	YES	
P0904938	SRGA J144459.2-604207	1500	A	YES	
P0904939	MAXI J1957+032	1500	A	YES	
P0904940	MAXI J1816-195	1500	A	YES	
P0904941	IGR J17494-3030	1500	A	YES	
P0904942	IGR J17498-2921	1500	A	YES	

P0904943	MAXI J0911-655	1500	A	YES	
P0904944	IGR J17591-2342	1500	A	YES	
P0904945	IGR J18245-2452	1500	A	YES	
P0904946	IGR J17062-6143	1500	A	YES	
P0904947	SWIFT J1749.4-2807	1500	A	YES	
P0904948	IGR J17511-3057	1500	A	YES	
P0904949	Swift J1756.9-2508	1500	A	YES	
P0904950	HETE J1900.1-2455	1500	A	YES	

P0904951	IGR J00291+5934	1500	A	YES	
P0904952	IGR J17379-3747	1500	A	YES	
P0904953	NGC 6440 X-2	1500	A	YES	
P0904954	IGR J16597-3704	1500	A	YES	
P0904955	SAX J1748.8-2021	1500	A	YES	
P0904956	XTE J1814-338	1500	A	YES	
P0904957	XTE J1807-294	1500	A	YES	
Title	Investigating accretion and bursting processes in low-mass X-ray binaries			PI	Mr.JensBeck

ABSTRACT	<p>We propose Target of Opportunity (ToO) observations with Insight-HXMT of neutron star low-mass X-ray binaries (LMXBs) during X-ray outburst and thermonuclear bursting states. These observations will exploit HXMT’s broad 1–250 keV energy coverage and large collecting area to investigate the interaction between persistent accretion emission and Type I X-ray bursts. Our primary goals are to measure burst recurrence times, energetics, and spectral evolution to characterize changes in the accretion flow induced by bursts. We also aim to detect emission and absorption lines associated with elemental abundances in these systems.</p> <p>HXMT’s sensitivity in the hard X-ray band enables precise measurements of Comptonized emission from the corona and its response to bursts, providing key diagnostics of disk–corona coupling. Time-resolved spectroscopy across this wide energy range will allow us to track burst-driven spectral evolution, probe reflection signatures, and constrain the geometry of the accretion flow.</p> <p>By targeting LMXBs such as 4U 1820-30 and 4U 0614+091, we aim to connect burst properties with fuel composition and accretion states. These observations will provide critical constraints on thermonuclear burning regimes and the physics of accretion in neutron star systems.</p>					
Special requirement	Data of one source can be protected for the “PhD Research Program”.					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note	

P0904781	4U 0614+091	50	B	YES	
P0904782	4U 1820-303	50	B	YES	
Title	Hunting for cyclotron resonance scattering features in three accreting pulsars			PI	Dr.LorenzoDucci
ABSTRACT	<p>We propose to observe three high-mass X-ray binaries containing pulsars, KS 1947 +300, XTE J1859+083, and EXO2030+375 to perform spectral and timing analysis with the main aim to search for cyclotron resonance scattering features (CRSFs) in their average and phase-resolved spectra. We will also exploit the broadband capabilities of Insight-HXMT to constrain the physical interpretations of the spectra observed, to study the pulse profile variability and its energy and luminosity dependency, and to search for quasi-periodic oscillations in their power spectra. All these measurements will allow us to gain fundamental information to understand the accretion processes in these binary systems and in the broader context of the overall population of accreting pulsars in HMXBs.</p>				
Special requirement	Data of one source can be protected for the “PhD Research Program”.				

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904783	EXO_2030+375	200	B	YES	
P0904784	XTE J1859+083	200	A	YES	
P0904785	KS_1947+300	200	B	YES	
Title	Search for Harmonics of Known Cyclotron lines			PI	Mr. Alexander Salganik
ABSTRACT	<p>This proposal is a resubmission of the previously approved TO0 proposal for the upcoming cycle, as the trigger conditions did not occur during the previous period. X-ray pulsars (XRP's) allow us to study microphysics under extreme conditions of ultra-strong magnetic fields. Detecting cyclotron lines (CRSFs) in their spectra provides crucial information about the magnetic field strength near the XRP's surface. This proposal aims to systematically search for harmonics of known CRSFs in various XRP's to confirm the presence of fundamental cyclotron lines and obtain more accurate measurements of the magnetic field strengths. By analyzing both fundamental and higher harmonics, we can determine the magnetic field strength in different regions of the accretion column and gain insight into scattering and photon</p>				

	<p>emission processes. During the previous cycle, one of the proposed sources, 1A 1118-61, was successfully observed, and the corresponding analysis is ongoing, with a publication in preparation. We therefore propose to use Insight-HXMT to observe one additional XRP from our pulsar list with an already known CRSF at energies up to 55 keV and no known harmonics, with an exposure time of 150 ks.</p>				
Special requirement	<p>One of the following sources will be triggered if scientifically justified. Data of one source can be protected for the “PhD Research Program”.</p>				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904787	MAXI J1409-619	150	B	YES	
P0904788	IGR J06074+2205	150	A	YES	
P0904789	GX 304-1	150	B	YES	
P0904790	XTE J1858+034	150	B	YES	

P0904791	GRO J1750-27	150	C	YES	
P0904792	4U 1626-67	150	B	YES	
P0904793	MXB 0656-072	150	B	YES	
P0904794	RX J0520.5-6932	150	A	YES	
P0904795	SWIFT J1808.4-1754	150	A	YES	
P0904796	Cep X-4	150	B	YES	
P0904797	IGR J17329-2731	150	A	YES	
P0904798	SAX J1802.7-2017	150	B	YES	

P0904799	GS 1843+009	150	B	YES	
P0904800	IGR J16393-4643	150	B	YES	
P0904801	SMC X-2	150	A	YES	
P0904802	2S 1553-542	150	B	YES	
P0904803	XTE J1829-098	150	B	YES	
P0904804	SWIFT J0541.5-6826	150	B	YES	
P0904805	SXP15.3	150	A	YES	
Title	Investigating the Hysteresis of Cyclotron Lines in Be/X-ray Pulsars During the Giant Outbursts.			PI	Mr.HuaXiao

ABSTRACT	<p>Be/X-ray pulsars (BeXRP) are a subclass of High Mass X-ray Binary that host a strongly magnetized neutron star (NS). The magnetic field of the NS (10¹²-10¹³ G) drives the accreting matter along its field lines towards the magnetic polar caps. In such magnetic fields, the kinetic energy of electrons in the accreting plasma is quantized in discrete Landau levels and photons with specific energies can be resonant scattering, imprinting on the X-ray spectrum Cyclotron Resonant Scattering Features (or cyclotron lines; CRSFs). The energy of the fundamental line provides a direct measure of the magnetic field of the line formation region. Theoretical and observational evidence suggests that the energy of the CRSF (E_{cyc}) depends on the source luminosity, reflecting how the geometry of the accretion column varies with the accretion rate. However, the BeXRP V0332+53 and 1A 0535+262 have exhibited significant differences in E_{cyc} at similar luminosities during the rising and fading phases of their giant outbursts. The physics behind this discrepancy remains unknown. We propose to use Insight-HXMT to observe one BeXRP from our pulsar list with the hysteresis of line energy is already discovered or CRSFs is confirmed. The total exposure time is 400 ks. The broadband capabilities of Insight-HXMT make it a perfect observatory for constraining the line energies.</p>				
Special requirement	<p>One of the following sources will be triggered if scientifically justified. Data of one source can be protected for the “PhD Research Program”.</p>				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0904806	GRO J1008-57	400	C	YES	
P0904807	GRO J2058+42	400	B	YES	
P0904808	Cep X-4	400	B	YES	
P0904809	3A 0656-072	400	B	YES	
P0904810	GX 304-1	400	B	YES	
P0904811	4U 0115+63	400	C	YES	
P0904812	1A 0535+262	400	C	YES	
P0904813	V 0332+53	400	B	YES	

Title	Hard X-ray spectral-timing of bright accreting millisecond X-ray pulsar outbursts with Insight-HXMT	PI	Dr.AndreaSanna
ABSTRACT	<p>This proposal requests a pre-approved Target-of-Opportunity observation of a bright accreting millisecond X-ray pulsar (AMXP) outburst with Insight-HXMT. The trigger may be either a known AMXP returning to outburst or a newly discovered transient with recent observational evidence supporting an AMXP classification. The nominal trigger threshold is set at or above 100 mCrab, following the Insight-HXMT recommendation, with 50-100 mCrab triggers allowed only for exceptionally favourable hard-band cases with a clean field. The goal is to obtain broadband spectral-timing constraints on the high-energy continuum, the cutoff energy, a possible hard tail, and the energy dependence of coherent millisecond pulsations. These diagnostics probe the Comptonizing plasma, accretion geometry, and disk-magnetosphere coupling. The simultaneous LE/ME/HE coverage and large hard X-ray collecting area provide a unique opportunity to explore AMXP emission beyond the range typically accessible to soft X-ray observatories and, in favourable cases, beyond the standard focusing hard X-ray band. A 150 ks pointed observation is requested during the bright outburst phase.</p>		
Special requirement	One source (not specific by other pre-approved proposal) will be triggered if scientifically justified.		
Title	Accretion–ejecta Coupling in X-ray Binaries with Insight-HXMT	PI	Dr.RuicanMa

ABSTRACT	<p>GS 1826-238 是低质量 X 射线双星系统，由于存在准周期性的 X 射线暴，被称为 clocked burster。该源的爆发演化与大多数源不同，长期处在较为稳定的状态。该源在 2014 年前处在“硬态”，随后进入了一个反常状态，与常见的“中间态”类似。申请人建议在该源重新回到“硬态”后，进行 36ks 的连续定点观测。提案类型为 ToO，触发标准为 Swift/BAT 流量大于 100 mCrab。申请人拟通过该源的宽波段能谱、X 射线暴形态与等待时标，研究不同吸积率情况下的盘-冕结构，以及 X 射线暴的点火理论。</p>				
Special requirement	Coordinated observations, three of the following sources will be triggered if scientifically justified.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904815	Aql X-1	20	A	YES	
P0904816	4U 1608-52	20	A	YES	
P0904817	4U 1543-47	20	A	YES	

P0904818	GRO J1655-40	20	A	YES	
P0904819	H 1743-322	20	A	YES	
P0904820	MAXI J1535-571	20	A	YES	
P0904821	MAXI J1631-479	20	A	YES	
P0904822	MAXI J1659-152	20	A	YES	
P0904823	Swift J1745.1-2624	20	A	YES	
P0904824	XTE J1817-330	20	A	YES	
P0904825	XTE J1859+226	20	A	YES	

P0904826	XTE J1550-564	20	A	YES	
P0904827	GX 339-4	20	A	YES	
Title	微类星体射电闪耀期间的吸积-喷流耦合研究			PI	Dr.Zhen Yan
ABSTRACT	<p>微类星体射电闪耀期间通:常对应相对论性喷流喷射和吸积态性快速演化，是研究黑洞吸积-喷流耦合的关键观测对象:。本项目拟利用慧眼卫星协同上海天文台 VLBI 网络及东 05、CygX-1、CygX-3 及新爆发黑亚 VLBI 网络，对 GRS1915+]洞 X 射线双星的射电:将由射电、X 射线或伽马射线流量角虫发，采用定点模式，闪耀开展同步监测。慧眼观测时工作，总曝光约 260ks。结合宽能要求 LE、ME 和 HE 三载荷同段 X 射线能谱与快速光变、多历元高分辨率射电成像和短时标相干射电观测，我们将汉则量喷流运动学性质，搜索射电闪耀期间的 X 射线/房电 QPO，揭示喷流行为与吸积盘、冕演化之间的关联。</p>				
Special requirement	Coordinated observations				

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904831	Cyg X-3	130	A	YES	
P0904832	Cyg X-1	130	A	YES	
P0904833	GRS 1915+105	1330	A	YES	
Title	慧眼对黑洞 X 射线双星爆发最后阶段 reflare 的观测研究			PI	Dr.LiangZhang
ABSTRACT	黑洞 X 射线双星爆发最后阶段经常出现 reflare，reflare 期间可能存在谱态转换现象。目前，关于 reflare 的产生机制还不明确，主要原因是缺少高频次的监测样本。本提案申请慧眼 400 ks 对黑洞 X 射线双星爆发最后阶段 reflare 的观测，研究 reflare 期间的光变曲线形状、能谱和时变性质演化，比较 reflare 与主爆的区别，探讨 reflare 的产生机制。慧眼宽波段的能谱可以同时限制能谱中的吸积盘、冕和反射成分。				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904835	XTE J1650-500	400	B	YES	
P0904836	MAXI J1535-571	400	C	YES	
Title	磁星爆发期与快速射电暴的 HXMT- EP 和 HXMT-射电望远镜多波段机会目标（ToO）联合观测			PI	Dr.LinLin
ABSTRACT	磁星具有强磁场、强引力场是高能时域天文重要研究对象。在活跃期内，磁星可以产生多种 X 射线和射电爆发;其持续辐射强度、能谱、脉冲轮廓以及自转性质也会发生显著改变。HXMT 捕捉到来自的磁星 SGRJ1935+2154 与快速射电暴 FRB200428 成协的非热 X 射线爆发。证实了磁星爆发是 FRB 的来源之一。而 FAST 没有探测到同一活跃期的 29 个 X 射线爆发的射电信号。说明磁星爆发产生射电辐射的条件非常严苛。事实证明 HXMT 得益于宽能段和高灵敏度是目前唯一可以区分磁星爆发辐射性质的观测设备。我们希望利用				

	HXMT 更多地观测磁星爆发活动尤其是联合 FAST 等射电望远镜进行多波段联测，从而对磁星和 FRB 的性质和起源进行更深入的研究。爆发期内，磁星的爆发活动与持续辐射及自转相位的关系是研究磁星爆发期起源演化的重要观测资料。EP 在 10keV 以下能段的高灵敏度可以联合 HXMT 获得磁星爆发更宽能段的性质以及与持续辐射的关系。由此我们申请对磁星活跃期和邻近重复 FRB 开展 HXMT 与射电望远镜和 EP 的联合 ToO 观测。				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904837	GRB200415A	50	A	YES	
P0904838	GRB231115A	50	A	YES	
P0904839	FRB20240114A	50	A	YES	

P0904840	FRB20200120E	50	A	YES	
P0904841	FRB20220428	50	A	YES	
P0904842	FRB20211204	50	A	YES	
P0904843	PSR J0726–2612	50	A	YES	
P0904844	PSR J1718–3718	50	A	YES	
P0904845	PSR J1819–1458	50	A	YES	
P0904846	PSR J1119-6127	50	A	YES	
P0904847	PSR J1846-258	50	A	YES	

P0904848	1E 161348-5055.1	50	A	YES	
P0904849	LS_I_+61_303	50	A	YES	
P0904850	Swift J1555.2-5402	50	A	YES	
P0904851	SGR 1830-0645	50	A	YES	
P0904852	Swift J1818-1607	50	A	YES	
P0904853	SGR 2013+34	50	A	YES	
P0904854	AX J1845.0-0258	50	A	YES	
P0904911	AX J1818.8-1559	50	A	YES	

P0904912	SGR 1808–203	50	A	YES	
P0904913	SGR 1801–23	50	A	YES	
P0904914	SGR 0755–2933	50	A	YES	
P0904915	1E 2259+586	50	A	YES	
P0904916	SGR 1935+2154	50	A	YES	
P0904917	SGR 1900+14	50	A	YES	
P0904918	3XMM J185246.6+003317	50	A	YES	
P0904919	1E 1841–045	50	A	YES	

P0904920	Swift J1834.9–0846	50	A	YES	
P0904921	SGR 1833–0832	50	A	YES	
P0904922	Swift J1822.3–1606	50	A	YES	
P0904923	XTE J1810–197	50	A	YES	
P0904924	SGR 1806-20	50	A	YES	
P0904925	SGR J1745–2900	50	A	YES	
P0904926	CXOU J171405.7–381031	50	A	YES	
P0904927	1RXS J170849.0–400910	50	A	YES	

P0904928	CXOU J164710.2–455216	50	A	YES	
P0904929	SGR 1627–41	50	A	YES	
P0904930	PSR J1622-4950	50	A	YES	
P0904931	1E 1547.0-5418	50	A	YES	
P0904932	1E 1048.1–5937	50	A	YES	
P0904933	SGR 0526–66	50	A	YES	
P0904934	SGR 0501+4516	50	A	YES	
P0904935	SGR 0418+5729	50	A	YES	

P0904936	4U 0142+61	50	A	YES	
P0904937	CXOU J010043.1-721134	50	A	YES	
Title	银河系磁星活跃期的多波段观测			PI	Dr.LIXiaobo
ABSTRACT	<p>迄今为止，在 SGR J1935+2154 的 7 次射电事件中，只有 4 次与 X 射线爆发相关联，需要更多的数据才能完全理解 X 射线和射电爆发之间的相关性。多波段观测（包括射电和 X 射线波段）可以帮助我们理解其底层的辐射过程。考虑到 FAST 和 KM40m 的可观测天区，我们提议对 13 个银河系磁星进行 ToO 观测，这些磁星在 X 射线处于活动期时，可以使用慧眼和 KM40m 的 C/S 波段及 FAST 联合观测 X 射线和射电的活动。根据典型磁星的估计 FRB 发生率，假设所有磁星都是 SGR J1935+2154 的类似体，我们预计总事件率为每年 0.09 至 5.2 次。我们期望在射电和 X 射线波段检测到离轴爆发（Zhang, 2021; Yang & Zhang, 2021），这可以帮助我们研究喷流的动力学和驱动机制，了解中心引擎如何为 FRB 辐射提供能量，并推断 FRB 辐射的产生位置。检测到的射电爆发的完整偏振信息将使我们能够推断磁层结构和底层的辐射机制。</p>				

Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904855	PSR J1846-0258	50	A	YES	
P0904856	SGR 2013+34	50	A	YES	
P0904857	AXJ1845.0-0258	50	A	YES	
P0904858	1E 2259+586	50	A	YES	
P0904859	SGR 1900+14	50	A	YES	

P0904860	3XMM J185246.6+003317	50	A	YES	
P0904861	1E 1841-045	50	A	YES	
P0904862	Swift J1834.9-0846	50	A	YES	
P0904863	SGR 1833-0832	50	A	YES	
P0904864	SGR 0501+4516	50	A	YES	
P0904865	SGR 0418+5729	50	A	YES	
P0904866	4U 0142+61	50	A	YES	

P0904867	SGR J1935+2154	300	A	YES	
Title	Crab 脉冲星周期跃变研究			PI	Dr.gemingyu
ABSTRACT	Crab 脉冲星已经 7 年没有大的周期跃变，而理论预测近期可能存在大的跃变，因此，监测 Crab 脉冲星的周期跃变后的自转演化以及已经可能的星云流量变化，详细研究脉冲星的周期跃变或者星云流量变化之后，脉冲星的计时特征、脉冲轮廓演化和制动指数的演化情况，研究年轻脉冲星磁场变化的可能性。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904868	Crab	100	A	YES	

Title	利用 X 射线暴研究 X 射线双星的吸积物理过程	PI	Dr.Yu-PengChen
ABSTRACT	<p>X 射线暴是发生在 X 射线双星系统中秒量级的耀发，其最高光度可达爱丁顿光度。发生在中子星表面的热核爆被称为一型 X 射线暴，RXTE 卫星最早发现了热核爆期间引力能辐射的变化，NICER 和 Insight-HXMT 在单个热核暴中确认了热核暴期间引力能辐射强度可以增加近十倍，但都基于引力能辐射谱形不变这一前提，而这一前提和热核暴期间硬 X 射线辐射缺失这一现象矛盾。最近 Insight-HXMT 在单个暴中也发现了硬 X 射线辐射超出。这一矛盾可能通过 Insight-HXMT 的观测得以解决，给出暴期间吸进能谱形的变化，以此给出热核暴对吸积环境的影响。二型 X 射线暴有着更频繁的暴发频率和更复杂的光变能谱特性，在黑洞双星和活动星系核中发现的硬 X 射线延迟也在中子星系统的二型 X 射线暴中被发现（Chen et al 2021），可能代表着在跨越致密性系统和数量级质量的系统中有着的相同的辐射机制，通过慧眼的高频观测和其他卫星的联合观测，可能给出在硬 X 射线延迟现象中三类系统的共同的辐射机制。</p> <p>目前，GECAM 卫星发现了数十个热核暴候选体，通过定位和暴频确认了其中一个热核暴来源于 4U 0614+09，和 Swift/BAT 的观测一起第一次确认了该源的自旋频率。依靠 GECAM 的大视场，将能看到更多的热核暴，给出其统计特征，尤其是引力能和核能的释放能量之比，将能限制吸积物质组成和外流的多少等。</p>		

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904870	SAX J1808.4-3658	300	A	YES	
P0904871	MXB 1730-33	300	C	YES	
P0904872	4U 0614+091	300	A	YES	
P0904873	Cyg X-2	300	B	YES	
P0904874	4U 1820-303	300	A	YES	
P0904875	4U 1728-34	300	A	YES	

P0904876	Aql X-1	300	C	YES	
P0904877	4U 1635-536	300	B	YES	
P0904878	4U 1608-52	300	C	YES	
Title	Unveiling the mystery of the state transition of black hole X-ray binaries			PI	Dr.HonghuiLiu
ABSTRACT	The mechanism governing the fast hard-to-soft state transition of black hole X-ray binaries(BH XRBs) remains a mystery. Insight-HXMT data with broadband coverage, high energyresolution and good timing capabilities are unique to answer this question. We request 20x5ks Insight-HXMT exposure time for possible hard-to-soft state transitions of a bright BHXRB. Daily observations should be arranged once triggered.				
Special requirement	One of the following sources will be triggered if scientifically justified.				

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904879	4U 1630-472	100	B	YES	
P0904880	GX 339-4	100	C	YES	
P0904881	XTE J1550-564	100	C	YES	
P0904882	GRO J1655-40	100	C	YES	
P0904883	H 1743-322	100	C	YES	
P0904884	GRS 1716-249	100	A	YES	
P0904885	MAXI J1535-571	100	C	YES	

P0904886	MAXI J1348-630	100	B	YES	
P0904887	Swift J1727.8-163	100	A	YES	
P0904888	MAXI J1820+070	100	B	YES	
Title	An Insight-HXMT view of the disk wind in GRS 1915+105			PI	Dr.HonghuiLiu
ABSTRACT	<p>Disk wind is an important structure of the accretion flow. Study of the disk wind in the X-ray band relies on resolving the absorption line and the broadband continuum. Compared to other instruments, Insight-HXMT has the advantage to resolve the absorption structure and the broadband continuum simultaneously. We propose 5 HXMT observations on GRS1915+105 if the source goes into a spectrally soft state to study the physical properties of the wind. We require 30 ks exposure for each observation. We will also investigate how the wind can respond to the variation of the ionizing spectrum. By doing these, we expect to provide more clues on the physical origin of the disk wind.</p>				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904889	GRS 1915+105	150	C	YES	
Title	An Insight-HXMT view of the galactic ultraluminous X-ray pulsar Swift			PI	Dr.HonghuiLiu
ABSTRACT	Five Insight-HXMT observations each with 30 ks exposure are requested to observe the nextout- burst of the Galactic ultraluminous X-ray pulsar Swift J0243.6+6124. We require to trigger these observations when the MAXI-GSC (2-20keV) count rate is higher than 4ct/s/cm^2. These observations will enable studies of: (1) the evolution of the broad iron line from sub-Eddington to super- Eddington accretion regime (2) the geometry of the innermost accretion region at different accretion rates (3) the strength of the magnetic field.				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904890	Swift J0243.6+6124	150	C	YES	
Title	Dense Insight-HXMT Monitoring of Black Hole X-ray Binaries During Hard-to-Soft State Transitions			PI	Dr.ZuobinZhang
ABSTRACT	Hard-to-soft state transitions in black hole X-ray binaries (BHXBs) are accompanied by dramatic changes in accretion geometry and the production of relativistic jets. However, the physical mechanism responsible for triggering transient jet ejections remains poorly understood, largely due to the lack of dense X-ray coverage during the critical transition phase. We propose a monitoring campaign with Insight-HXMT targeting bright BHXBs undergoing hard-to-soft state transitions, The primary goal is to obtain densely sampled X-ray observations around the epoch of transient jet launching, providing a unique opportunity to identify accretion-flow signatures associated with jet production. Simultaneous radio monitoring with MeerKAT will allow us to investigate the evolution of disk-jet coupling during the transition. In particular, we aim to study the poorly understood phase when the compact jet is being quenched and				

	evolves from an optically thick to an optically thin outflow, during which the source appears to deviate from the standard hard-state radio/X-ray correlation. The proposed observations will provide critical constraints on the physical connection between the accretion flow, corona, and relativistic outflows in accreting stellar-mass black holes.				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904891	GX 339-4	200	A	YES	
Title	黑洞暂现源反响映射观测提案申请			PI	Dr. 于微

ABSTRACT	<p>低质量 X 射线双星的吸积盘演化模型至今仍有很大争议，而以往这方面的研究通常依赖于能谱拟合。利用慧眼卫星的宽能段观测数据，通过反响映射的研究方法，将有助于我们从时变的角度探索吸积盘的结构和演化。</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904892	Swift J1727.8-1613	300	A	YES	
P0904893	MAXI J1535-571	300	C	YES	
P0904894	GX 339-4	300	C	YES	
P0904895	MAXI J1348-630	300	B	YES	

P0904896	MAXI J1820+070	300	B	YES	
Title	Monitoring the Next Outburst of the Recurrent Nova T Coronae Borealis with Insight-HXMT			PI	Dr.SongpengPei
ABSTRACT	T Corona Borealis (T CrB) is one of only ten known recurrent novae and among the brightest and most famous. It has undergone previous eruptions in 1866 and 1946, each reaching a peak brightness of $V = 2.0$. Following an 80-year period of quiescence, T CrB is predicted to erupt again between 2024 and 2027, potentially becoming the brightest nova of our lifetime. We propose ToO observations of the anticipated eruption of T CrB. Observing with Insight-HXMT during AO-09 offers a unique opportunity to study the early-time high-energy response to nuclear burning on a massive white dwarf, shock interaction with red-giant winds, and the evolution of X-ray emission mechanisms.				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0904897	T Coronae Borealis	300	B	YES	
Title	Mapping the Three-dimensional Accretion Column Structure through Phase-transient Cyclotron Diagnostics with Insight-HXMT			PI	Dr.YongfengHu
ABSTRACT	<p>Cyclotron Resonant Scattering Features (CRSFs) provide the most direct method formeasuring the magnetic field strength of accreting neutron stars and probing the geometryof their accretion columns (Schonherr et all, 2007). Most CRSFs are detected in phase-averaged spectra and originate close to the neutron-star surface. However, a rare classof phase-transient cyclotron lines has recently emerged, appearing only within narrowpulse-phase intervals and remaining invisible in phase-averaged spectra.</p> <p>Prior to the recent discovery in 1A 0535+26, such features had been reported only in GRO J2058+42 (Molkov et al, 2019). These observations suggest that cyclotron-line formation may occur in localized regions of the accretion column that become visible only for specific viewing geometries.</p> <p>We propose Target-of-Opportunity (ToO) observation of GRO J2058+42 during brightoutburst states. The broad energy coverage and large collecting area of Insight-HXMTmake it uniquely suited for pulse-phase resolved spectroscopy and for searching for lowtransient cyclotron features. By mapping the phase dependence of CRSF properties,we aim to constrain the three-dimensional structure of accretion columns and investi-gate whether phase-transient cyclotron lines are a common phenomenon among stronglymagnetized X-ray pulsars.</p>				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904898	GRO J2058+42	100	B	YES	
Title	Investigating the Evolution of the Comptonizing Medium Across Accretion States and Its Connection to Rapid X-ray Variability in 4U 1705-44 with Insight-HXMT			PI	Dr.SuchismitoChattopadhyay
ABSTRACT	The common physical mechanism that determines the changes in the spectral-temporal behaviour in neutron-star lowmass X-ray binaries (NSLMXBs) has remained in a continuous focus of research interest for the past few decadesIn transient systems such as 4U 1636-536 and 4U 1608-52, state transitions occur during large-scale outbursts mostlywhen variations in accretion rate, luminosity, disc structure, and burst activity change significantly. In contrast, thebright persistent atoll sources like 4U 1705-44 exhibit rapid island-to-banana transitions compared to the transientones. These rapid changes are often accompanied by changes in the reflection signatures and state-dependent spectralvariability on a similar scale to those transient sources and, hence, provide a way to probe the interplay betweenaccretion geometry, coronal evolution, and temporal variability in a relatively smaller time scale. This also gives usa scope to study the				

	<p>difference in the nature of the accretion process in these systems in comparison to the transient ones. Despite their importance, neither source has been the subject of a dedicated broadband spectral-timing study with Insight-HXMT.</p> <p>We propose a 120 ks observational exposure of 4U 1705-44 to study the island, intermediate, and banana states variability in this source. The total exposure of 120 ks will be divided into three distinguished categories, which are motivated by the long MAXI and Swift observations. The triggering criteria have been roughly estimated using source positions in the MAXI hardness-intensity diagram to ensure that we get a significant exposure time for each distinct accretion state rather than simply different flux levels. This is essential for tracking the evolution of coronal and timing properties across the state transition. The primary goal is to quantify the effects of the mass accretion rate, reconfiguration of the inner accretion flow and role of the Comptonising medium in driving the changes in the spectral states of these systems. Through simultaneous study of the broadband continuum, high-energy cutoff, Comptonisation parameters, and rapid variability characteristics, Insight-HXMT is capable of providing the evidence of the geometry-corona-variability connection for these systems.</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0904899	4U 1705-44	50	A	YES	
Title	Investigating the Evolution of the Comptonizing Medium Across Accretion States and Its Connection to Rapid X-ray Variability in 4U 1705-44 with Insight-HXMT			PI	Dr.SuchismitoChattopadhyay
ABSTRACT	<p>The common physical mechanism that determines the changes in the spectral-temporal behaviour in neutron-star lowmass X-ray binaries (NSLMXBs) has remained in a continuous focus of research interest for the past few decades. In transient systems such as 4U 1636-536 and 4U 1608-52, state transitions occur during large-scale outbursts mostly when variations in accretion rate, luminosity, disc structure, and burst activity change significantly. In contrast, the bright persistent atoll sources like 4U 1705-44 exhibit rapid island-to-banana transitions compared to the transient ones. These rapid changes are often accompanied by changes in the reflection signatures and state-dependent spectral variability on a similar scale to those transient sources and, hence, provide a way to probe the interplay between accretion geometry, coronal evolution, and temporal variability in a relatively smaller time scale. This also gives us a scope to study the difference in the nature of the accretion process in these systems in comparison to the transient ones. Despite their importance, neither source has been the subject of a dedicated broadband spectral-timing study with Insight-HXMT.</p> <p>We propose a 120 ks observational exposure of 4U 1705-44 to study the island, intermediate, and banana state variability in this source. The total exposure of 120 ks will be divided into three distinguished categories, which are motivated by the long MAXI and Swift observations. The triggering criteria have been roughly estimated using source positions in the MAXI hardness-intensity diagram to ensure that we get a significant exposure time for each distinct</p>				

	accretion state rather than simply different flux levels. This is essential for tracking the evolution of coronal and timing properties across the state transition. The primary goal is to quantify the effects of the mass accretion rate, reconfiguration of the inner accretion flow and role of the Comptonising medium in driving the changes in the spectral states of these systems. Through simultaneous study of the broadband continuum, high-energy cutoff, Comptonisation parameters, and rapid variability characteristics, Insight-HXMT is capable of providing the evidence of the geometry-corona-variability connection for these systems.				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904900	4U 1705-44	20	A	YES	
Title	Investigating the Evolution of the Comptonizing Medium Across Accretion States and Its Connection to Rapid X-ray Variability in 4U 1705-44 with Insight-HXMT			PI	Dr. Suchismito Chattopadhyay

ABSTRACT

The common physical mechanism that determines the changes in the spectral-temporal behaviour in neutron-star lowmass X-ray binaries (NSLMXBs) has remained in a continuous focus of research interest for the past few decades. In transient systems such as 4U 1636-536 and 4U 1608-52, state transitions occur during large-scale outbursts mostly when variations in accretion rate, luminosity, disc structure, and burst activity change significantly. In contrast, the bright persistent atoll sources like 4U 1705-44 exhibit rapid island-to-banana transitions compared to the transient ones. These rapid changes are often accompanied by changes in the reflection signatures and state-dependent spectral variability on a similar scale to those transient sources and, hence, provide a way to probe the interplay between accretion geometry, coronal evolution, and temporal variability in a relatively smaller time scale. This also gives us a scope to study the difference in the nature of the accretion process in these systems in comparison to the transient ones. Despite their importance, neither source has been the subject of a dedicated broadband spectral-timing study with Insight-HXMT.

We propose a 120 ks observational exposure of 4U 1705-44 to study the island, intermediate, and banana states variability in this source. The total exposure of 120 ks will be divided into three distinguished categories, which are motivated by the long MAXI and Swift observations. The triggering criteria have been roughly estimated using source positions in the MAXI hardness-intensity diagram to ensure that we get a significant exposure time for each distinct accretion state rather than simply different flux levels. This is essential for tracking the evolution of coronal and timing properties across the state transition. The primary goal is to quantify the effects of the mass accretion rate, reconfiguration of the inner accretion flow and role of the Comptonising medium in driving the changes in the spectral states of these systems. Through simultaneous study of the broadband continuum, high-energy cutoff, Comptonisation parameters, and rapid variability characteristics, Insight-HXMT is capable of providing the evidence of the geometry-corona-variability connection for these systems.

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904901	4U 1705-44	50	A	YES	
Title	黑洞暂现源上升期与转换态长期观测			PI	Dr.HEXINLIU
ABSTRACT	<p>黑洞暂现源在爆发上开期展现出剧烈的光度增长和谱态演化，是研究吸积过程早期演化机制的关键窗口期。然而，目前对于上开吸积盘的观测相对稀缺，尤其是在在多波段联关动和高时间分辨率方面，限制了我们对于吸积盘不稳定性处罚机制、喷流启动时机以及硬/软态转变物理本质的理解。因此我们提议对黑洞暂现源的上升期开展系统观测，结合光谱、时域和多波段数据，以揭示该结算的吸积动力学过程及其与喷流活动的耦合关系。</p> <p>在状态转换期间，源的能谱通常由吸秒只盘和冕区的辐射共同主导。目前主流的盘-冕几何模型主要包括吸积盘截断模型与灯塔:(lamppost)模型。观测与理论研究均表明，吸积流几何结构的显著变化主要发生在状态</p>				

	转换阶段，尤其是在硬-软转换态和软-硬回返态。通过对该阶段的辐射能谱特性及其时变行为的深入研究，有望揭示吸积流结构的空间分布、冕区的物理性质，以及盘-冕系统的演化机制。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904902	GRS 1915+105	200	C	YES	
P0904903	4U 1630-472	200	B	YES	
P0904904	XTE J1550-564	200	C	YES	
P0904905	GX 339-4	200	C	YES	

P0904906	H 1743-322	200	C	YES	
Title	吸积 X 射线脉冲星宽能段能谱与相位分解谱研究			PI	Dr.Peng-JuWang
ABSTRACT	<p>吸积 X 射线脉冲星是研究强磁场中物质吸积、辐射转移和中子星磁场结构的关键实验室。其宽能段连续谱、回旋共振散射特征、铁线变化以及脉冲轮廓随能量和光度的演化，直接反映吸积柱几何、辐射束型和磁层半径变化。本提案拟利用慧眼卫星 LE/ME/HE 三载荷的宽能段覆盖和高时间分辨率能力，对一批明亮持续型和暂现型吸积脉冲星开展相位分解研究与爆发跟踪，重点研究脉冲相位分解谱、回旋线参数、硬 X 射线截断能量和短时标时变之间的耦合关系。</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904909	Her X-1	300	B	YES	

Title	黑洞 X 射线双星爆发初期吸积演化研究			PI	Dr.Peng-JuWang
ABSTRACT	<p>黑洞 X 射线暂现源在爆发上升段和复燃阶段通常首先处于低硬态，其快速时变和硬 X 射线能谱携带了内吸积流、热冕和喷流的关键信息。本提案拟利用慧眼卫星宽能段覆盖和高时间分辨率优势，对 GX 339-4、H 1743-322、4U 1630-472、XTE J1550 - 564 等暂现源开展 ToO 观测。我们将系统研究低硬态中 QPO、宽带功率谱、能量依赖 rms、相位延迟、光子指数、高能截断和反射成分的演化，并比较同一源不同爆发及不同爆发源之间的差异，从而约束低硬态冕几何和吸积流结构变化。</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0904910	H 1743-322	300	C	YES	

Title	Investigating a candidate new torque reversal in GX 1+4			PI	Dr.LongJi
ABSTRACT	<p>We propose three 50 ks Insight-HXMT observations of the symbiotic X-ray pulsar GX 1+4 to investigate a candidate new torque reversal indicated by recent Fermi/GBM monitoring. Our observations will test whether the event is a sustained transition into a new torque state or a temporary torque excursion. By tracking pulse profile morphology and broadband spectral evolution along with the torque reversal, we will diagnose changes in the accretion geometry and distinguish a rebuilding disk-like inner flow from wind-fed or settling-accretion scenarios. This program provides an opportunity to study the physical origin of torque reversal in a slowly rotating accreting neutron star.</p>				
Special requirement	Data can be protected for the “PhD Research Program”.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905773	GX 1+4	150	A	NO	

Title	Studying the burst-disk interaction from Ultracompact X-ray binaries 4U 1820-30			PI	Prof.ZhaoshengLi
ABSTRACT	<p>We propose to perform forty 20 ks HXMT target of observations of a persistent Ultracompact X-ray binaries (UCXB) 4U 1820-30. These observations will allow us to detect type-I X-ray bursts, to study the broad band spectrum in detail from hard to soft X-ray energies. If possible we will detect long bursts and super bursts of the source. The a high sensibility in timing information will make it possible to study disk reflection, hard X-ray shortages, and the inner accretion disk being distorted by the burst radiation. Well known that all bursts of 4U 1820-30 show significant the photospheric radius expansion (PRE). In some bursts, the photospheric expands to more than 10 times the NS radius, and generate a matter outflow wind. The high signal-to-noise spectral information will make it possible to measure spectral lines or edges chemical elements during a PRE burst. We also measure the gravitational redshift on the NS surface to probe the interior conditions of the Equation of States (EoS) at supranuclear densities. Besides, it can explore the meaning the touchdown point during a PRE burst affected by burst-driven winds or the Poynting-Robsertson (PR) effects. Moreover, we may detect the first time burst oscillations at high-energy (if present).</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905777	4U 1820-303	800	A	YES	

Title	基于掩食导航的在轨试验			PI	Dr.ShijieZheng
ABSTRACT	<p>大气掩食导航利用地球大气遮掩明亮宇宙 X 射线源的精确时刻作为轨道约束，是低地球轨道 X 射线天文卫星实现自主轨道确定的一种新型方法。理论与模拟分析表明，单源掩食存在固有几何秩亏，法向方向后验不确定度高。本提案申请对 Crab、Sco X-1 和 Cyg X-1 三个 X 射线源进行序贯观测，利用三源方向天区的几何互补性填补秩亏，实现首次在轨多源掩食导航验证</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905778	Cyg X-1	50	A	NO	
P0905779	Sco X-1	50	A	NO	

P0905780	Crab	50	A	NO	
Title	关于大质量 X 射线双星 QPO 的研究			PI	Dr.QiLIU
ABSTRACT	<p>吸积脉冲星的 X 射线研究是探索极强磁场和强引力下物理过程的重要工具，是慧眼卫星的主要科学目标之一。Cen X-3、4U 0352+30 (X Persei) 和 4U 1907+097 这几个源都是比较典型的大质量 X 射线双星。我们可以对这些中子星的 QPO 进行功率谱时域分析。近年来，利用 NuSTAR、Suzaku、RXTE 等卫星的观测，人们对其时域性质有了初步认识。然而，受限于时间覆盖和能段分辨率，仍缺乏系统的高时间分辨率与宽能段联合观测，以揭示其 QPO 随光度、能量以及脉冲相位的演化。</p>				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905828	4U 0352+30	200	A	NO	

P0905829	4U 1907+09	200	A	NO	
P0905830	Cen X-3	100	A	NO	
Title	黑洞 X 射线双星常亮源 Cyg X-1 观测提案申请			PI	Prof.BeiYou
ABSTRACT	<p>Cyg X-1 作为常亮源，其吸积状态与暂现源有所不同。历史观测数据表明，Cyg X-1 在不同 X 射线光谱态下，其功率密度谱（PDS）中偶尔会检测到持续时间较短、轮廓较宽的峰值结构，即强度较弱的暂现型 QPO 信号。Yan 等人（2021）利用慧眼卫星的观测数据，首次在该源的软光谱态下，于其低能（LE）、中能（ME）和高能（HE）三个探测器数据中同时探测到了此类 QPO 现象。然而，在后续的观测中，该 QPO 信号未能复现，突显了其暂现性特征。</p> <p>本提案旨在对 Cyg X-1 进行目标观测，重点聚焦于其处于高 X 射线流量状态的时期。我们将充分利用慧眼卫星独有的宽能段覆盖和高时间分辨率优势，获取高质量的多能段光变曲线数据。通过系统地应用时频分析技术（如小波分析、动态功率谱等），我们计划深入搜寻和表征可能出现的暂现型 QPO 信号，进而探索对其 QPO 物理起源机制的理解。</p>				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905834	Cyg X-1	600	A	NO	
Title	利用慧眼卫星研究 NS-LMXB 4U 1636-53 中 I 型 X 射线暴对周围环境影响			PI	Dr.GuobaoZhang
ABSTRACT	I 型 X 射线暴作为中子星 X 射线双星系统(NS-XRBs)中最常见的瞬变现象之一，虽经数十年 X 射线观测积累了海量数据，其物理机制仍存在诸多未解之谜。目标源 4U1636-53 作为典型的 atoll 源，其不同能谱态下均存在I型 X 射线暴的观测记录，且暴发光变轮廓与能谱特征呈现显著的态依赖性。为此，我们将协调慧眼卫星(HXMT)、SVOM 卫星及南非 MeerKAT 射电望远镜开展联合观测，通过多波段数据耦合揭示暴发过程的完整物理图像。本研究拟多波段协同观测的创新方法，系统探究 NS-XRBs 中I型 X 射线暴的动态演化规律，重点解析其如何触发吸积几何结构的显著改变，从而深化对中子星吸积过程的物理认知。				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905869	4U 1636-53	400	A	NO	
Title	中子星低质量 X 射线双星中 I 型暴与吸积环境相互作用			PI	Dr.Peng-JuWang
ABSTRACT	<p>I 型 X 射线暴是中子星低质量 X 射线双星中吸积氢/氦物质在中子星表面发生不稳定热核燃烧所产生的强 X 射线暴发现象。传统上，I 型暴主要被用于研究中子星表面核燃烧、光球半径膨胀、源距离以及中子星性质。然而，近年来的观测表明，I 型暴不仅是中子星表面的核燃烧事件，也是研究吸积盘、边界层和热电子冕的瞬时探针。暴发期间产生的大量软 X 射线光子会照亮并扰动中子星周围的吸积环境，可能导致持续辐射增强、硬 X 射线缺失、热冕冷却、内盘结构变化以及再处理辐射增强等现象。本项目拟利用慧眼卫星宽能段覆盖和高时间分辨率的优势，对一批具有较高 I 型暴发生率的中子星低质量 X 射线双星开展系统观测，研究 I 型热核暴与吸积环境之间的短时标相互作用。</p>				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0905908	4U 1728-34	300	A	NO	

(3) Calibration proposals

Title	慧眼 HXMT 在轨标定
ABSTRACT	由于部分载荷的工作状态进行了调整，而且性能存在演化，因此慧眼的能量响应、有效面积、准直器响应等还需要持续的进行在轨标定。

	申请 2026 年度标定观测，具体为：对 Crab 定点观测 9 次，共计 9 天，Cas A 定点观测 8 次，共计 16 天，总观测时间 25 天。对 Crab 扫描观测 24 次，扫描区域半径 7 度，扫描间隔 0.1 度，扫描速度 0.06 度/s，扫描时间为 12 天。有效曝光时间共计：18.5 天。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0902659	SAS_053431+220054_7.00	-	A	NO	
P0902660	Cas A	-	A	NO	
P0902661	Crab Nebula	-	A	NO	