The selected proposals with approved observations:

(1) Core proposals

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
P0701006	SAS_172018-281838_7.00	42	A	YES	

P0701007	SAS_171344-302058_7.00	42	A	YES	
P0701008	SAS_170652-322141_7.00	42	A	YES	
P0701009	SAS_165938-342035_7.00	42	A	YES	
P0701010	SAS_165202-361727_7.00	42	A	YES	
P0701011	SAS_164400-381204_7.00	42	A	YES	
P0701012	SAS_163530-400408_7.00	42	A	YES	
P0701013	SAS_162630-415321_7.00	42	A	YES	
P0701014	SAS_161656-433923_7.00	42	A	YES	

P0701015	SAS_160645-452148_7.00	42	A	YES	
P0701016	SAS_155556-470013_7.00	42	A	YES	
P0701017	SAS_154423-483406_7.00	42	A	YES	
P0701018	SAS_153206-500256_7.00	42	A	YES	
P0701019	SAS_151901-512607_7.00	42	A	YES	
P0701020	SAS_150507-524301_7.00	42	A	YES	
P0701021	SAS_145023-535257_7.00	42	A	YES	
P0701022	SAS_143449-545513_7.00	42	A	YES	

P0701023	SAS_141828-554908_7.00	42	A	YES	
P0701024	SAS_140123-563359_7.00	42	A	YES	
P0701025	SAS_134341-570910_7.00	42	A	YES	
P0701026	SAS_132528-573410_7.00	42	A	YES	
P0701027	SAS_130654-574834_7.00	42	A	YES	
P0701028	SAS_124812-575208_7.00	42	A	YES	
P0701029	SAS_122931-574448_7.00	42	A	YES	
P0701030	SAS_121103-572643_7.00	42	A	YES	

P0701031	SAS_115300-565809_7.00	42	A	YES	
P0701032	SAS_113529-561933_7.00	42	A	YES	
P0701033	SAS_111839-553129_7.00	42	A	YES	
P0701034	SAS_110234-543437_7.00	42	A	YES	
P0701035	SAS_104717-532937_7.00	42	A	YES	
P0701036	SAS_103251-521712_7.00	42	A	YES	
P0701037	SAS_101914-505803_7.00	42	A	YES	
P0701038	SAS_100626-493251_7.00	42	A	YES	

P0701039	SAS_095424-480212_7.00	42	A	YES	
P0701040	SAS_094307-462642_7.00	42	A	YES	
P0701041	SAS_093231-444651_7.00	42	A	YES	
P0701042	SAS_092234-430308_7.00	42	A	YES	
P0701043	SAS_091312-411558_7.00	42	A	YES	
P0701044	SAS_090422-392543_7.00	42	A	YES	
P0701045	SAS_085602-373244_7.00	42	A	YES	
P0701046	SAS_084809-353719_7.00	42	A	YES	

P0701047	SAS_084041-333943_7.00	42	A	YES	
P0701048	SAS_083335-314010_7.00	42	A	YES	
P0701049	SAS_082649-293852_7.00	42	A	YES	
P0701050	SAS_082021-273601_7.00	42	A	YES	
P0701051	SAS_081410-253146_7.00	42	A	YES	
P0701052	SAS_080814-232617_7.00	42	A	YES	
P0701053	SAS_080230-211940_7.00	42	A	YES	
P0701054	SAS_075659-191203_7.00	42	A	YES	

P0701055	SAS_075138-170333_7.00	42	A	YES	
P0701056	SAS_074626-145415_7.00	42	A	YES	
P0701057	SAS_074123-124414_7.00	42	A	YES	
P0701058	SAS_073626-103336_7.00	42	A	YES	
P0701059	SAS_073136-082224_7.00	42	A	YES	
P0701060	SAS_072651-061042_7.00	42	A	YES	
P0701061	SAS_072211-035836_7.00	42	A	YES	
P0701062	SAS_071734-014608_7.00	42	A	YES	

P0701063	SAS_071300+002638_7.00	42	A	YES	
P0701064	SAS_070827+023939_7.00	42	A	YES	
P0701065	SAS_070356+045252_7.00	42	A	YES	
P0701066	SAS_065925+070614_7.00	42	A	YES	
P0701067	SAS_065453+091941_7.00	42	A	YES	
P0701068	SAS_065020+113311_7.00	42	A	YES	
P0701069	SAS_064545+134640_7.00	42	A	YES	
P0701070	SAS_064106+160005_7.00	42	A	YES	

P0701071	SAS_063623+181322_7.00	42	A	YES	
P0701072	SAS_063136+202629_7.00	42	A	YES	
P0701073	SAS_062641+223920_7.00	42	A	YES	
P0701074	SAS_062140+245154_7.00	42	A	YES	
P0701075	SAS_061630+270404_7.00	42	A	YES	
P0701076	SAS_061109+291546_7.00	42	A	YES	
P0701077	SAS_060537+312655_7.00	42	A	YES	
P0701078	SAS_055952+333725_7.00	42	A	YES	

P0701079	SAS_055351+354709_7.00	42	A	YES	
P0701080	SAS_054733+375559_7.00	42	A	YES	
P0701081	SAS_054054+400347_7.00	42	A	YES	
P0701082	SAS_053352+421022_7.00	42	A	YES	
P0701083	SAS_052624+441534_7.00	42	A	YES	
P0701084	SAS_051826+461907_7.00	42	A	YES	
P0701085	SAS_050954+482047_7.00	42	A	YES	
P0701086	SAS_050043+502014_7.00	42	A	YES	

P0701087	SAS_045047+521706_7.00	42	A	YES	
P0701088	SAS_044000+541055_7.00	42	A	YES	
P0701089	SAS_042814+560111_7.00	42	A	YES	
P0701090	SAS_041523+574715_7.00	42	A	YES	
P0701091	SAS_174400-195616_7.00	42	A	YES	
P0701092	SAS_173824-220332_7.00	42	A	YES	
P0701093	SAS_173236-240946_7.00	42	A	YES	
P0701094	SAS_172635-261451_7.00	42	A	YES	

P0701095	SAS_191927+240608_7.00	42	A	YES	
P0701096	SAS_191428+215328_7.00	42	A	YES	
P0701097	SAS_190936+194030_7.00	42	A	YES	
P0701098	SAS_190450+172720_7.00	42	A	YES	
P0701099	SAS_190009+151359_7.00	42	A	YES	
P0701100	SAS_185531+130033_7.00	42	A	YES	
P0701101	SAS_185057+104703_7.00	42	A	YES	
P0701102	SAS_184624+083334_7.00	42	A	YES	

P0701103	SAS_184153+062008_7.00	42	A	YES	
P0701104	SAS_183722+040649_7.00	42	A	YES	
P0701105	SAS_183250+015339_7.00	42	A	YES	
P0701106	SAS_182817-001916_7.00	42	A	YES	
P0701107	SAS_182342-023157_7.00	42	A	YES	
P0701108	SAS_181904-044418_7.00	42	A	YES	
P0701109	SAS_181422-065616_7.00	42	A	YES	
P0701110	SAS_180936-090747_7.00	42	A	YES	

P0701111	SAS_180444-111848_7.00	42	A	YES	
P0701112	SAS_175945-132914_7.00	42	A	YES	
P0701113	SAS_175439-153901_7.00	42	A	YES	
P0701114	SAS_174924-174803_7.00	42	A	YES	
P0701115	SAS_222604+632543_7.00	42	A	YES	
P0701116	SAS_220800+620223_7.00	42	A	YES	
P0701117	SAS_215132+603127_7.00	42	A	YES	
P0701118	SAS_213633+585402_7.00	42	A	YES	

P0701119	SAS_212254+571107_7.00	42	A	YES	
P0701120	SAS_211027+552331_7.00	42	A	YES	
P0701121	SAS_205902+533158_7.00	42	A	YES	
P0701122	SAS_204833+513702_7.00	42	A	YES	
P0701123	SAS_203853+493914_7.00	42	A	YES	
P0701124	SAS_202956+473859_7.00	42	A	YES	
P0701125	SAS_202136+453638_7.00	42	A	YES	
P0701126	SAS_201349+433229_7.00	42	A	YES	

P0701127	SAS_200631+412647_7.00	42	A	YES	
P0701128	SAS_195937+391945_7.00	42	A	YES	
P0701129	SAS_195306+371134_7.00	42	A	YES	
P0701130	SAS_194654+350225_7.00	42	A	YES	
P0701131	SAS_194059+325224_7.00	42	A	YES	
P0701132	SAS_193518+304140_7.00	42	A	YES	
P0701133	SAS_192950+283019_7.00	42	A	YES	
P0701134	SAS_192434+261827_7.00	42	A	YES	

P0701135	SAS_040117+592822_7.00	42	A	YES	
P0701136	SAS_034548+610339_7.00	42	A	YES	
P0701137	SAS_032848+623206_7.00	42	A	YES	
P0701138	SAS_031010+635231_7.00	42	A	YES	
P0701139	SAS_024950+650335_7.00	42	A	YES	
P0701140	SAS_022747+660355_7.00	42	A	YES	
P0701141	SAS_020409+665206_7.00	42	A	YES	
P0701142	SAS_013911+672649_7.00	42	A	YES	

P0701143	SAS_011315+674702_7.00	42	A	YES	
P0701144	SAS_004652+675204_7.00	42	A	YES	
P0701145	SAS_002034+674145_7.00	42	A	YES	
P0701146	SAS_235455+671625_7.00	42	A	YES	
P0701147	SAS_233022+663655_7.00	42	A	YES	
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P0701149	SAS_224548+644010_7.00	42	A	YES	
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P0701156	SAS_072950-283019_7.00	42	A	YES	
P0701157	SAS_072434-261827_7.00	42	A	YES	
P0701158	SAS_071927-240608_7.00	42	A	YES	

P0701159	SAS_071428-215328_7.00	42	A	YES	
P0701160	SAS_070936-194030_7.00	42	A	YES	
P0701161	SAS_070450-172720_7.00	42	A	YES	
P0701162	SAS_070009-151359_7.00	42	A	YES	
P0701163	SAS_065531-130033_7.00	42	A	YES	
P0701164	SAS_065057-104703_7.00	42	A	YES	
P0701165	SAS_064624-083334_7.00	42	A	YES	
P0701166	SAS_064153-062008_7.00	42	A	YES	

P0701167	SAS_063722-040649_7.00	42	A	YES	
P0701168	SAS_063250-015339_7.00	42	A	YES	
P0701169	SAS_062817+001916_7.00	42	A	YES	
P0701170	SAS_062342+023157_7.00	42	A	YES	
P0701171	SAS_061904+044418_7.00	42	A	YES	
P0701172	SAS_061422+065616_7.00	42	A	YES	
P0701173	SAS_060936+090747_7.00	42	A	YES	
P0701174	SAS_060444+111848_7.00	42	A	YES	

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P0701177	SAS_054924+174803_7.00	42	A	YES	
P0701178	SAS_054400+195616_7.00	42	A	YES	
P0701179	SAS_053824+220332_7.00	42	A	YES	
P0701180	SAS_053236+240946_7.00	42	A	YES	
P0701181	SAS_052635+261451_7.00	42	A	YES	
P0701182	SAS_052018+281838_7.00	42	A	YES	

P0701183	SAS_051344+302058_7.00	42	A	YES	
P0701184	SAS_050652+322141_7.00	42	A	YES	
P0701185	SAS_045938+342035_7.00	42	A	YES	
P0701186	SAS_045202+361727_7.00	42	A	YES	
P0701187	SAS_044400+381204_7.00	42	A	YES	
P0701188	SAS_043530+400408_7.00	42	A	YES	
P0701189	SAS_042630+415321_7.00	42	A	YES	
P0701190	SAS_041656+433923_7.00	42	A	YES	

P0701191	SAS_040645+452148_7.00	42	A	YES	
P0701192	SAS_035556+470013_7.00	42	A	YES	
P0701193	SAS_034423+483406_7.00	42	A	YES	
P0701194	SAS_033206+500256_7.00	42	A	YES	
P0701195	SAS_031901+512607_7.00	42	A	YES	
P0701196	SAS_030507+524301_7.00	42	A	YES	
P0701197	SAS_025023+535257_7.00	42	A	YES	
P0701198	SAS_023449+545513_7.00	42	A	YES	

P0701199	SAS_021828+554908_7.00	42	A	YES	
P0701200	SAS_020123+563359_7.00	42	A	YES	
P0701201	SAS_014341+570910_7.00	42	A	YES	
P0701202	SAS_012528+573410_7.00	42	A	YES	
P0701203	SAS_010654+574834_7.00	42	A	YES	
P0701204	SAS_004812+575208_7.00	42	A	YES	
P0701205	SAS_002931+574448_7.00	42	A	YES	
P0701206	SAS_001103+572643_7.00	42	A	YES	

P0701207	SAS_235300+565809_7.00	42	A	YES	
P0701208	SAS_233529+561933_7.00	42	A	YES	
P0701209	SAS_231839+553129_7.00	42	A	YES	
P0701210	SAS_230234+543437_7.00	42	A	YES	
P0701211	SAS_224717+532937_7.00	42	A	YES	
P0701212	SAS_223251+521712_7.00	42	A	YES	
P0701213	SAS_221914+505803_7.00	42	A	YES	
P0701214	SAS_220625+493251_7.00	42	A	YES	

P0701215	SAS_215424+480212_7.00	42	A	YES	
P0701216	SAS_214307+462642_7.00	42	A	YES	
P0701217	SAS_213231+444651_7.00	42	A	YES	
P0701218	SAS_212234+430308_7.00	42	A	YES	
P0701219	SAS_211312+411558_7.00	42	A	YES	
P0701220	SAS_210422+392543_7.00	42	A	YES	
P0701221	SAS_205602+373244_7.00	42	A	YES	
P0701222	SAS_204809+353719_7.00	42	A	YES	

P0701223	SAS_204041+333943_7.00	42	A	YES	
P0701224	SAS_203335+314010_7.00	42	A	YES	
P0701225	SAS_202649+293852_7.00	42	A	YES	
P0701226	SAS_202021+273601_7.00	42	A	YES	
P0701227	SAS_201410+253146_7.00	42	A	YES	
P0701228	SAS_200814+232617_7.00	42	A	YES	
P0701229	SAS_200230+211940_7.00	42	A	YES	
P0701230	SAS_195659+191203_7.00	42	A	YES	

P0701231	SAS_195138+170333_7.00	42	A	YES	
P0701232	SAS_194626+145415_7.00	42	A	YES	
P0701233	SAS_194123+124414_7.00	42	A	YES	
P0701234	SAS_193626+103336_7.00	42	A	YES	
P0701235	SAS_193136+082224_7.00	42	A	YES	
P0701236	SAS_192651+061042_7.00	42	A	YES	
P0701237	SAS_192211+035836_7.00	42	A	YES	
P0701238	SAS_191734+014608_7.00	42	A	YES	

P0701239	SAS_191300-002638_7.00	42	A	YES	
P0701240	SAS_190827-023939_7.00	42	A	YES	
P0701241	SAS_190356-045252_7.00	42	A	YES	
P0701242	SAS_185925-070614_7.00	42	A	YES	
P0701243	SAS_185453-091941_7.00	42	A	YES	
P0701244	SAS_185020-113311_7.00	42	A	YES	
P0701245	SAS_184545-134640_7.00	42	A	YES	
P0701246	SAS_184106-160005_7.00	42	A	YES	

P0701247	SAS_183623-181322_7.00	42	A	YES	
P0701248	SAS_183136-202629_7.00	42	A	YES	
P0701249	SAS_182641-223920_7.00	42	A	YES	
P0701250	SAS_182140-245154_7.00	42	A	YES	
P0701251	SAS_181630-270404_7.00	42	A	YES	
P0701252	SAS_181109-291546_7.00	42	A	YES	
P0701253	SAS_180537-312655_7.00	42	A	YES	
P0701254	SAS_083822-370943_7.00	42	A	YES	

P0701255	SAS_083059-350932_7.00	42	A	YES	
P0701256	SAS_082358-330735_7.00	42	A	YES	
P0701257	SAS_081717-310404_7.00	42	A	YES	
P0701258	SAS_081054-285909_7.00	42	A	YES	
P0701259	SAS_080448-265300_7.00	42	A	YES	
P0701260	SAS_075856-244546_7.00	42	A	YES	
P0701261	SAS_075317-223733_7.00	42	A	YES	
P0701262	SAS_074750-202828_7.00	42	A	YES	

P0701263	SAS_074232-181838_7.00	42	A	YES	
P0701264	SAS_073724-160807_7.00	42	A	YES	
P0701265	SAS_073223-135701_7.00	42	A	YES	
P0701266	SAS_072729-114524_7.00	42	A	YES	
P0701267	SAS_072241-093320_7.00	42	A	YES	
P0701268	SAS_071757-072054_7.00	42	A	YES	
P0701269	SAS_071318-050809_7.00	42	A	YES	
P0701270	SAS_070841-025508_7.00	42	A	YES	

P0701271	SAS_070406-004155_7.00	42	A	YES	
P0701272	SAS_065933+013125_7.00	42	A	YES	
P0701273	SAS_065500+034452_7.00	42	A	YES	
P0701274	SAS_065026+055822_7.00	42	A	YES	
P0701275	SAS_064552+081151_7.00	42	A	YES	
P0701276	SAS_064115+102516_7.00	42	A	YES	
P0701277	SAS_063636+123834_7.00	42	A	YES	
P0701278	SAS_063152+145141_7.00	42	A	YES	

P0701279	SAS_062704+170434_7.00	42	A	YES	
P0701280	SAS_062210+191709_7.00	42	A	YES	
P0701281	SAS_061709+212922_7.00	42	A	YES	
P0701282	SAS_061159+234108_7.00	42	A	YES	
P0701283	SAS_060641+255223_7.00	42	A	YES	
P0701284	SAS_060111+280302_7.00	42	A	YES	
P0701285	SAS_055529+301258_7.00	42	A	YES	
P0701286	SAS_054933+322205_7.00	42	A	YES	

P0701287	SAS_054321+343015_7.00	42	A	YES	
P0701288	SAS_053650+363720_7.00	42	A	YES	
P0701289	SAS_052959+384310_7.00	42	A	YES	
P0701290	SAS_052244+404735_7.00	42	A	YES	
P0701291	SAS_051503+425021_7.00	42	A	YES	
P0701292	SAS_050652+445113_7.00	42	A	YES	
P0701294	SAS_044843+484607_7.00	42	A	YES	
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P0701599	SAS_071828-125608_7.00	42	A	YES	
P0701600	SAS_071342-104325_7.00	42	A	YES	
P0701601	SAS_070901-083025_7.00	42	A	YES	
P0701602	SAS_070422-061713_7.00	42	A	YES	
P0701603	SAS_065947-040352_7.00	42	A	YES	
P0701604	SAS_065512-015025_7.00	42	A	YES	

P0701605	SAS_065039+002303_7.00	42	A	YES	
P0701606	SAS_064605+023632_7.00	42	A	YES	
P0701607	SAS_064130+044958_7.00	42	A	YES	
P0701608	SAS_063653+070316_7.00	42	A	YES	
P0701609	SAS_063214+091624_7.00	42	A	YES	
P0701610	SAS_062731+112918_7.00	42	A	YES	
P0701611	SAS_062244+134156_7.00	42	A	YES	
P0701612	SAS_061751+155411_7.00	42	A	YES	

P0701613	SAS_061252+180602_7.00	42	A	YES	
P0701614	SAS_060745+201724_7.00	42	A	YES	
P0701615	SAS_060230+222810_7.00	42	A	YES	
P0701616	SAS_055704+243818_7.00	42	A	YES	
P0701617	SAS_055127+264740_7.00	42	A	YES	
P0701618	SAS_054537+285610_7.00	42	A	YES	
P0701619	SAS_053932+310341_7.00	42	A	YES	
P0701620	SAS_053310+331005_7.00	42	A	YES	

P0701621	SAS_052630+351512_7.00	42	A	YES	
P0701622	SAS_051929+371854_7.00	42	A	YES	
P0701623	SAS_051204+392056_7.00	42	A	YES	
P0701624	SAS_050413+412106_7.00	42	A	YES	
P0701625	SAS_045552+431909_7.00	42	A	YES	
P0701626	SAS_044658+451446_7.00	42	A	YES	
P0701627	SAS_043727+470737_7.00	42	A	YES	
P0701628	SAS_042714+485717_7.00	42	A	YES	

P0701629	SAS_041616+504319_7.00	42	A	YES	
P0701630	SAS_040428+522512_7.00	42	A	YES	
P0701631	SAS_035144+540220_7.00	42	A	YES	
P0701632	SAS_033759+553400_7.00	42	A	YES	
P0701633	SAS_032311+565927_7.00	42	A	YES	
P0701634	SAS_030715+581751_7.00	42	A	YES	
P0701635	SAS_025009+592816_7.00	42	A	YES	
P0701636	SAS_023155+602944_7.00	42	A	YES	

P0701637	SAS_021235+612118_7.00	42	A	YES	
P0701638	SAS_015217+620201_7.00	42	A	YES	
P0701639	SAS_013111+623106_7.00	42	A	YES	
P0701640	SAS_010932+624756_7.00	42	A	YES	
P0701641	SAS_004738+625206_7.00	42	A	YES	
P0701642	SAS_002548+624332_7.00	42	A	YES	
P0701643	SAS_000419+622225_7.00	42	A	YES	
P0701644	SAS_234328+614914_7.00	42	A	YES	

P0701645	SAS_232329+610440_7.00	42	A	YES	
P0701646	SAS_230431+600934_7.00	42	A	YES	
P0701647	SAS_224640+590454_7.00	42	A	YES	
P0701648	SAS_222959+575137_7.00	42	A	YES	
P0701649	SAS_221426+563041_7.00	42	A	YES	
P0701650	SAS_220000+550259_7.00	42	A	YES	
P0701651	SAS_214637+532921_7.00	42	A	YES	
P0701652	SAS_213413+515030_7.00	42	A	YES	

P0701653	SAS_212242+500707_7.00	42	A	YES	
P0701654	SAS_211201+481946_7.00	42	A	YES	
P0701655	SAS_210203+462857_7.00	42	A	YES	
P0701656	SAS_205245+443507_7.00	42	A	YES	
P0701657	SAS_204403+423837_7.00	42	A	YES	
P0701658	SAS_203553+403948_7.00	42	A	YES	
P0701659	SAS_202811+383858_7.00	42	A	YES	
P0701660	SAS_202055+363620_7.00	42	A	YES	

P0701661	SAS_201401+343208_7.00	42	A	YES	
P0701662	SAS_200727+322633_7.00	42	A	YES	
P0701663	SAS_200112+301944_7.00	42	A	YES	
P0701664	SAS_195512+281152_7.00	42	A	YES	
P0701665	SAS_194927+260303_7.00	42	A	YES	
P0701666	SAS_194354+235325_7.00	42	A	YES	
P0701667	SAS_193832+214303_7.00	42	A	YES	
P0701668	SAS_193319+193204_7.00	42	A	YES	

P0701669	SAS_192815+172032_7.00	42	A	YES	
P0701670	SAS_192318+150832_7.00	42	A	YES	
P0701671	SAS_191828+125608_7.00	42	A	YES	
P0701672	SAS_191342+104325_7.00	42	A	YES	
P0701673	SAS_190901+083025_7.00	42	A	YES	
P0701674	SAS_190422+061713_7.00	42	A	YES	
P0701675	SAS_185947+040352_7.00	42	A	YES	
P0701676	SAS_185512+015025_7.00	42	A	YES	

P0701677	SAS_185039-002303_7.00	42	A	YES	
P0701678	SAS_184605-023632_7.00	42	A	YES	
P0701679	SAS_184130-044958_7.00	42	A	YES	
P0701680	SAS_183653-070316_7.00	42	A	YES	
P0701681	SAS_183214-091624_7.00	42	A	YES	
P0701682	SAS_182731-112918_7.00	42	A	YES	
P0701683	SAS_182244-134156_7.00	42	A	YES	
P0701684	SAS_181751-155411_7.00	42	A	YES	

P0701685	SAS_181252-180602_7.00	42	A	YES	
P0701686	SAS_180745-201724_7.00	42	A	YES	
P0701687	SAS_180230-222810_7.00	42	A	YES	
P0701688	SAS_175704-243818_7.00	42	A	YES	
P0701689	SAS_175127-264740_7.00	42	A	YES	
P0701690	SAS_174537-285610_7.00	42	A	YES	
P0701691	SAS_133111-623106_7.00	42	A	YES	
P0701692	SAS_130932-624756_7.00	42	A	YES	

P0701693	SAS_124738-625206_7.00	42	A	YES	
P0701694	SAS_122548-624332_7.00	42	A	YES	
P0701695	SAS_120419-622225_7.00	42	A	YES	
P0701696	SAS_114328-614914_7.00	42	A	YES	
P0701697	SAS_112329-610440_7.00	42	A	YES	
P0701698	SAS_110431-600934_7.00	42	A	YES	
P0701699	SAS_104640-590454_7.00	42	A	YES	
P0701700	SAS_102959-575137_7.00	42	A	YES	

P0701701	SAS_101426-563041_7.00	42	A	YES	
P0701702	SAS_100000-550259_7.00	42	A	YES	
P0701703	SAS_094637-532921_7.00	42	A	YES	
P0701704	SAS_093413-515030_7.00	42	A	YES	
P0701705	SAS_092242-500707_7.00	42	A	YES	
P0701706	SAS_091201-481946_7.00	42	A	YES	
P0701707	SAS_090203-462857_7.00	42	A	YES	
P0701708	SAS_085245-443507_7.00	42	A	YES	

P0701709	SAS_084403-423837_7.00	42	A	YES	
P0701710	SAS_083553-403948_7.00	42	A	YES	
P0701711	SAS_173932-310341_7.00	42	A	YES	
P0701712	SAS_173310-331005_7.00	42	A	YES	
P0701713	SAS_172630-351512_7.00	42	A	YES	
P0701714	SAS_171929-371854_7.00	42	A	YES	
P0701715	SAS_171204-392056_7.00	42	A	YES	
P0701716	SAS_170413-412106_7.00	42	A	YES	

P0701717	SAS_165552-431909_7.00	42	A	YES	
P0701718	SAS_164658-451446_7.00	42	A	YES	
P0701719	SAS_163727-470737_7.00	42	A	YES	
P0701720	SAS_162714-485717_7.00	42	A	YES	
P0701721	SAS_161616-504319_7.00	42	A	YES	
P0701722	SAS_160428-522512_7.00	42	A	YES	
P0701723	SAS_155144-540220_7.00	42	A	YES	
P0701724	SAS_153759-553400_7.00	42	A	YES	

P0701725	SAS_152311-565927_7.00	42	A	YES	
P0701726	SAS_150715-581751_7.00	42	A	YES	
P0701727	SAS_145009-592816_7.00	42	A	YES	
P0701728	SAS_143155-602944_7.00	42	A	YES	
P0701729	SAS_141235-612118_7.00	42	A	YES	
P0701730	SAS_135217-620201_7.00	42	A	YES	
P0701731	SAS_045806+464955_7.00	42	A	YES	
Title	The joint observations of ten bright magnetars between Insight-HXMT and EP-FXT				

ABSTRACT	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。				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704748	SGR_0501+4516	140	A	YES	
P0704749	PSR_J1846-0258	140	A	YES	
P0704750	SGR_1900+14	140	A	YES	
P0704751	CXOU_J171405.7-381031	140	A	YES	

P0704752	1E_1048.1-5937	140	A	YES	
P0704753	1E_2259+586	140	A	YES	
P0704754	1E_1841-045	140	A	YES	
P0704755	1RXS_J170849.0-400910	140	A	YES	
P0704756	4U_0142+61	140	A	YES	
P0704757	SGR_1935+2154	140	A	YES	
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
P0704758	new_source_1	600	A	YES	
P0704759	new_source_2	600	A	YES	
P0704760	new_source_3	600	A	YES	
P0704761	3A_0114+650	1200	A	YES	
P0704762	4U_0115+634	1200	A	YES	

P0704763	RX_J0209.6-7427	1200	A	YES	
P0704766	TOO Cyg X-1	360	A	YES	
P0704767	MXB_1730-33	300	A	YES	
P0704768	Aql_X-1	300	A	YES	
P0704769	4U_1636-53	300	A	YES	
P0704770	4U_1608-52	300	A	YES	
P0704771	GX_9+01	100	A	YES	
P0704772	GX_3+01	100	A	YES	

P0704773	Cyg_X-2	300	A	YES	
P0704774	XTE_J1701-462	1000	A	YES	
P0704775	MXB_0656-072	1200	A	YES	
P0704776	GRO_J2058+42	1200	A	YES	
P0704777	RX_J0440.9+4431	1200	A	YES	
P0704778	4U_1901+03	1200	A	YES	
P0704779	Ginga_0834-430	1200	A	YES	
P0704780	GRO_J1750-27	1200	A	YES	

P0704781	KS_1947+300	1200	A	YES	
P0704782	2S_1417-624	1200	A	YES	
P0704783	1A_1118-615	1200	A	YES	
P0704784	1A_0535+262	1200	A	YES	
P0704785	GRO_J1008-57	1200	A	YES	
P0704786	EXO_2030+375	1200	A	YES	
P0704787	GRO_J1744-28	1200	A	YES	
P0704788	4U_1700-377	1200	A	YES	

P0704789	4U_1907+09	1200	A	YES	
P0704790	XTE_J1829-098	1200	A	YES	
P0704791	4U_1822-371	1200	A	YES	
P0704792	IGR_J18027-2016	1200	A	YES	
P0704793	IGR_J17544-2619	1200	A	YES	
P0704794	IGR_J16393-4643	1200	A	YES	
P0704795	SWIFT_J1626.6-5156	1200	A	YES	
P0704796	4U_2206+54	1200	A	YES	

P0704797	GX_304-1	1200	A	YES	
P0704798	SWIFT_J1845.6+0051	1200	A	YES	
P0704799	XMMU_J054134.7-682550	1200	A	YES	
P0704800	4U_1908+075	1200	A	YES	
P0704801	2S_1553-542	1200	A	YES	
P0704802	MAXI_J1409-619	1200	A	YES	
P0704803	SWIFT_J0513.4-6547	1200	A	YES	
P0704804	Cep_X-4	1200	A	YES	

P0704805	2S_1845-024	1200	A	YES	
P0704806	IGR_J18179-1621	1200	A	YES	
P0704807	SAX_J2103.5+4545	1200	A	YES	
P0704808	XTE_J1946+274	1200	A	YES	
P0704809	XTE_J1858+034	1200	A	YES	
P0704810	IGR_J19294+1816	1200	A	YES	
P0704811	GX_1+04	1200	A	YES	
P0704812	4U_1538-52	1200	A	YES	

P0704813	4U_1626-67	1200	A	YES	
P0704814	Her_X-1	1200	A	YES	
P0704815	Cen_X-3	100	A	YES	
P0704816	GX_301-2	200	A	YES	
P0704817	Vela_X-1	200	A	YES	
P0704818	GRS_1915+105	170	A	YES	
P0704819	Cyg_X-3	170	A	YES	
P0704820	Cyg X-1	360	A	YES	

P0704821	SWIFT_J1728.9-3613	1500	A	YES	
P0704822	H_1743-322	1500	A	YES	
P0704823	XTE_J1752-223	1500	A	YES	
P0704824	EXO_1846-031	1500	A	YES	
P0704825	XTE_J1650-500	1500	A	YES	
P0704826	V404_Cyg	1500	A	YES	
P0704827	4U_1630-472	1500	A	YES	
P0704828	4U_1543-47	1500	A	YES	

P0704829	XTE_J1817-330	1500	A	YES	
P0704830	XTE_J1859+226	1500	A	YES	
P0704831	GX_339-4	1500	A	YES	
P0704832	MAXI_J1631-479	1500	A	YES	
P0704833	MAXI_J1348-630	1500	A	YES	
P0704834	XTE_J1550-564	1500	A	YES	
P0704835	GRO_J1655-40	1500	A	YES	
P0704836	MAXI_J1535-571	1500	A	YES	

P0704837	MAXI_J1820+070	1500	A	YES	

(2) Guest proposals

Title	银河系磁星活跃期的多波段观测	PI	Dr.LIXiaobo
ABSTRACT	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。		

Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704000	SGR_0501+4516	50	A	YES	
P0704001	SGR_1833-0832	50	A	YES	
P0704002	Swift_J1834.9-0846	50	A	YES	
P0704003	1E_1841-045	50	A	YES	
P0704004	AX_J1845.0-0258	50	A	YES	
P0704005	PSR J1846-0258	50	A	YES	
P0704006	SGR_2013+34	50	A	YES	

P0704007	1E_2259+586	50	A	YES	
P0704008	SGR_1900+14	50	A	YES	
P0704009	3XMM_J185246.6+003317	300	A	YES	
P0704010	SGR_1935+2154	300	A	YES	
P0704998	4U_0142+61	50	A	YES	
P0704999	SGR_0418+5729	50	A	YES	

Title	明亮或活跃快速射电暴 X 射线对应体搜寻	PI	Dr.YeLi
ABSTRACT	快速射电暴(Fast Radio Burst, FRB)是来自宇宙深处的射电明亮爆发现象，持续时间约千分之一秒，是现今发展最快的天文领域之一。在射电以外的波段，迄今为止仅有源自河内磁星 SGR 1935+2154 的快速射电暴观测到了确定的 X 射线同时爆发，并且观测到了 3 次。表明了磁星能够产生低光度快速射电暴。然而，河外快速射电暴是否具有相同起源仍是未解之谜。在揭示快速射电暴起源的过程中，X 射线对应体的是潜在的关键手段。如若探测到河外快速射电暴的 X 射线对应体，将开拓全新的快速射电暴研究窗口。本项目申请以机		

	遇观测模式 ToO 使用慧眼 HXMT 望远镜进行明亮或活跃快速射电暴 X 射线对应体搜寻。触发条件为：我国的 500 米口径球面射电望远镜 FAST、陕西昊平的 40 米望远镜、澳大利亚的 Parkes 望远镜等射电望远镜进行明亮的快速射电暴观测时，进行同时的 X 射线观测。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704012	othe FRBs in bursting phase	10	A	YES	
P0704013	FRB20200120E	10	A	YES	
Title	Study of QPOs in black hole X-ray binaries		PI	Mrs.XiaohangDAI	

ABSTRACT	Quasi-periodic oscillations (QPOs) in black hole X-ray binaries are a crucial phenomenon for understanding the dynamics and physical processes occurring in the vicinity of black holes. These QPOs, observed as periodic variations in the X-ray flux, provide insights into the accretion disk behavior, relativistic effects near the event horizon, and the interaction between the accretion disk and relativistic jets. In this study, we utilize observations from the Insight-HXMT (Hard X-ray Modulation Telescope) to investigate the properties and origins of QPOs in several well-known black hole X-ray binary systems, including GRS 1915+105, GX 339-4, and XTE J1550-564. By analyzing the temporal and spectral characteristics of QPOs across a broad energy range (1-250 keV), we aim to identify the underlying mechanisms driving these oscillations. Our results highlight significant correlations between QPO frequencies and spectral states, providing evidence for models involving inner accretion disk oscillations and magnetohydrodynamic (MHD) instabilities. Additionally, we explore the implications of our findings for the understanding of black hole spin, mass accretion rates, and jet formation processes. This comprehensive study enhances our knowledge of the complex environment around black holes and offers new perspectives for theoretical modeling and future observations.				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0704014	XTE_J1748-288	20	A	YES	
P0704015	SWIFT_J1753.5-0127	20	A	YES	
P0704016	XTE_J1908+094	20	A	YES	
P0704017	GRS_1716-249	20	B	YES	

Title	黑洞暂现源转换态连续观测	PI	Dr.HexinLiu
ABSTRACT	本观测提案旨在通过对黑洞暂现源转换态的长期观测，深入研究其能谱特性和时变性质，从而探索吸积流的几何结构及其演化。黑洞暂现源在转换态时，其能谱通常由吸积盘和冕的辐射共同主导，主要通过吸积盘截断模型和 lamppost 模型来描述盘冕结构的变化。转换态包括硬转换态和软转换态，期间吸积流的几何形状和物理特性会发生显著变化。吸积盘截断模型中，硬转换态时盘的截断半径较大，冕的辐射占主导地位；软转换态时截断半径减小，盘的辐射增强。Lamppost 模型中，硬转换态时冕靠近黑洞，产生强烈的硬 X 射线；软转换态时冕位置升高，软 X 射线辐射增强。通过长期观测黑洞暂现源的辐射能谱和时变性质的变化，可以揭示辐射机制、几何结构变化和物理条件演化等关键问题，从而更好地理解黑洞吸积过程和高能天体物理现象。本提案将为相关研究提供重要的数据支持。		

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704018	Newly discovered transient source	300	A	YES	
P0704019	MAXI_J1348-630	300	B	YES	
Title	探测 Cir X-1 的 X 射线辐射特性		PI	Dr.HexinLiu	

ABSTRACT	Cir X-1 是一个具有独特喷流活动和 X 射线行为的 X 射线双星系统。通过慧眼卫星对 Cir X-1 进行连续的 X 射线观测，可以深入研究其喷流结构，X 射线辐射性质以及与星际介质的相互作用。本提案将重点研究其 X 射线光变与轨道相位的关系，探索不同轨道相位下中子星辐射活动和喷流特征的变化。通过 X 射线数据的获取和分析，我们旨在分析 Cir X-1 其高能辐射机制，并探讨其在不同轨道相位下的光变曲线及能谱性质。预计通过这些研究，能够揭示轨道相位对 X 射线辐射性质的影响，深入理解中子星吸积物理过程及其与轨道相互作用的复杂机制。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704020	Cir X-1	400	A	YES	
Title	吸积 X 射线脉冲星的脉冲轮廓研究		PI	Dr.Peng-JuWang	

ABSTRACT	吸积脉冲星的脉冲轮廓在低光度和高光度下表现出不同的特征，这主要是由于极冠区的辐射模式转换引起的。在低光度下，X 射线辐射主要沿磁力线方向辐射，称为铅笔模式。而在高光度下，吸积柱表面的辐射会占主导地位，这被称为风扇模式。这种辐射方向的改变直接影响到观测到的脉冲轮廓的变化。随着光度的增加，脉冲轮廓会经历剧烈变化，反映出辐射模式从铅笔模式向风扇模式的转变。这种转变不仅影响脉冲轮廓，还会影响脉冲比分的变化。脉冲比分是指脉冲峰值之间的强度比，它随着光度的演化也会发生变化。通过研究吸积脉冲星的脉冲轮廓和脉冲比分，可以深入了解中子星极冠区的辐射模式转换。这对于理解中子星辐射机制以及回旋共振散射特性对辐射集束模式的影响具有重要意义。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704021	V_0332+53	400	B	YES	
P0704022	RX_J0440.9+4431	400	B		

P0704023	Her_X-1	400	B		
Title	Probing the state transition for new Black Hole Candidate of AT2019wey with Insight-HXMT			PI	Prof.李兵
ABSTRACT	AT2019wey is a newly discovered black hole candidate that was first detected in late 2019 and is believed to be associated with a black hole in a binary system. The subsequent observations have revealed that AT2019wey is likely associated with a low-mass companion star and began activation in the X-ray band in 2020. AT2019wey did not enter the soft state during almost the entire outburst, making it a rare and exciting discovery. A prominent 55 mHz QPO was also found in the power density spectrum. However , the detection on August 2023 proposed that AT2019wey was in an extremely soft state. Previous observational properties are more consistent with those of black hole X-ray binaries than neutron star ones, but the nature is still unknown because of its peculiar properties. The spectrum of AT2019Wey becomes harder, but still softer than before. So the follow-up observations in soft to hard X-ray band are encouraged. Notably, the absence of a hard-soft state transition in black hole X-ray binaries is not uncommon, and it is possible that AT2019wey may exhibit a different type of behavior. Insight-HXMT telescope is well-suited for studying the properties of black holes and their associated phenomena. The aim of this proposal is to use Insight-HXMT to probe the state transition and origins of AT2019wey. AT2019wey has maintained a trend of continuous brightening in recent years. We can study the X-ray emission from AT2019wey by using high-quality data from the soft to the hard range				

	with LE/ME/HE payloads of Insight-HXMT. We can investigate the properties of the accretion disk around the black hole and the associated jets via spectrum and timing analysis methods.				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704024	AT2019wey	700	A	YES	
Title	T CrB 的观测研究		PI	Dr. Shaolin Xiong	

ABSTRACT	T CrB 是一个双星系统，包含一颗白矮星和一颗红巨星，大约每隔 80 年爆发一次(Recurrent novae)，预期在 2024.4+/-0.3 year 爆发，申请使用慧眼卫星进行爆发前、爆发期间的高频次观测，全面刻画爆发的完整过程。				
Special requirement	Coordinated observations				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704026	V* T CrB	200	A	YES	
Title	快速射电暴高能对应体的观测研究		PI	Dr. Shaolin Xiong	

ABSTRACT	快速射电暴的起源和辐射机制是重要的未解之谜。银河系内的磁星 SGR 1935+2154 被探测到产生快速射电暴(FRB)及伴随的磁星 X 射线爆发(XRB)，其中，慧眼卫星于 20200428 首次发现 XRB 中的两个窄脉冲是快速射电暴的高能对应体，极目卫星于 20221120 再次发现 XRB 中存在射电暴的高能对应体。然而目前的观测都来自河内 SGR 1935+2154 这颗磁星，河内的其它磁星是否也能产生快速射电暴仍然缺乏观测证据。此外，一些研究表明河外的快速射电暴也可能起源于磁星，而且有些重复爆发的 FRB 被认为起源于双星系统（包括一颗中子星或黑洞以及一颗 O 或 B 型星），但尚未有直接观测证据，因此河外快速射电暴的起源之谜尚待揭开。本提案申请利用慧眼卫星和射电望远镜（KM40m），对河内及临近星系的磁星以及 X 射线双星系统(主要是 HMXB)进行联合监测，监测它们是否产生快速射电暴及对应的高能辐射，破解快速射电暴起源之谜。
Special requirement	Coordinated observations

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704027	4U_2206+54	100	A	YES	

P0704028	SAX_J2239.3+6116	100	A	YES	
P0704029	Cep_X-4	100	A	YES	
P0704030	IGR J21343+4738	100	A	YES	
P0704031	SAX_J2103.5+4545	100	A	YES	
P0704032	EXO_2030+375	100	A	YES	
P0704033	KS_1947+300	100	A	YES	
P0704034	XTE_J1946+274	100	A	YES	
P0704035	IGR_J22534+6243	100	A	YES	

P0704036	IGR_J16465-4507	100	A	YES	
P0704037	IGR_J16393-4643	100	A	YES	
P0704038	IGR_J16358-4726	100	A	YES	
P0704039	IGR_J16320-4751	100	A	YES	
P0704040	SWIFT_J1626.6-5156	100	A	YES	
P0704041	2S_1553-542	100	A	YES	
P0704042	4U_1538-52	100	A	YES	
P0704043	4U 1036-56	100	A	YES	

P0704044	Ginga_0834-430	100	A	YES	
P0704045	3A 0726-260	100	A	YES	
P0704046	MXB_0656-072	100	A	YES	
P0704047	SGR_1627-41	100	A	YES	
P0704048	PSR_J1622-4950	100	A	YES	
P0704049	1E_1547.0-5418	100	A	YES	
P0704050	SGR_0501+4516	100	A	YES	
P0704051	SGR_0418+5729	100	A	YES	

P0704052	4U_0142+61	100	A	YES	
P0704053	XTE_J1810-197	100	A	YES	
P0704054	SGR_1806-20	100	A	YES	
P0704055	SGR_1900+14	100	A	YES	
P0704056	Swift J1555.2-5402	100	A	YES	
P0704057	SGR_1935+2154	100	A	YES	
P0704058	SAX J0635.2+0533	100	A	YES	
P0704059	V_0332+53	100	A	YES	

P0704060	IGR_J01583+6713	100	A	YES	
P0704061	RX_J0146.9+6121	100	A	YES	
P0704062	4U_0115+634	100	A	YES	
P0704063	SMC_X-2	100	A	YES	
P0704064	GX 301-2	100	A	YES	
P0704065	Vela_X-1	100	A	YES	
P0704067	LS +61°303	100	A	YES	
P0704068	GRO_J1008-57	100	A	YES	

P0704069	4U_1700-377	100	A	YES	
P0704070	1A_0535+262	100	A	YES	
P0704071	X Per	100	A	YES	
P0704072	Swift_J0243.6+6124	100	A	YES	
P0704073	RX_J0440.9+4431	100	A	YES	
P0704074	LMC	100	A	YES	
P0704075	NGC 253	100	A	YES	
P0704076	M83	100	A	YES	

P0704077	M82	100	A	YES	
P0704078	M81	100	A	YES	
P0704079	M31	100	A	YES	
P0704080	SGR_2013+34	100	A	YES	
P0704081	AX_J1845.0-0258	100	A	YES	
P0704082	AX_J1818.8-1559	100	A	YES	
P0704083	SGR_1808-203	100	A	YES	
P0704084	SGR_1801-23	100	A	YES	

P0704085	SGR_0755-2933	100	A	YES	
P0704086	SGR_1830-0645	100	A	YES	
P0704087	1E_2259+586	100	A	YES	
P0704088	3XMM_J185246.6+003317	100	A	YES	
P0704089	1E_1841-045	100	A	YES	
P0704090	Swift_J1834.9-0846	100	A	YES	
P0704091	SGR_1833-0832	100	A	YES	
P0704092	Swift_J1822.3-1606	100	A	YES	

P0704093	Swift_J1818-1607	100	A	YES	
P0704094	SGR_J1745-2900	100	A	YES	
P0704095	CXOU_J171405.7-381031	100	A	YES	
P0704096	1RXS_J170849.0-400910	100	A	YES	
P0704097	CXOU J164710.2−455216	100	A	YES	

Title	Measuring the Broad Band X-ray Emission of Millisecond X-Ray Pulsars in Outburst	PI	Dr.ZhaoshengLi
ABSTRACT	We propose to perform thirty-five 20 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.				
Special requirement	One of the following sources will be triggered if scientifically justified.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704842	IGR_J00291+5934	700	A	YES	
P0704843	MAXI_J0911-655	700	A	YES	
P0704844	XTE_J0929-314	700	A	YES	
P0704845	SRGA_J144459.2-604207	700	A	YES	

P0704846	IGR_J16597-3704	700	A	YES	
P0704847	IGR_J17062-6143	700	A	YES	
P0704848	MAXI_J1957+032	700	A	YES	
P0704849	MAXI_J1816-195	700	A	YES	
P0704850	IGR_J17494-3030	700	A	YES	
P0704851	IGR_J17498-2921	700	A	YES	
P0704852	IGR_J17591-2342	700	A	YES	
P0704853	IGR_J18245-2452	700	A	YES	

P0704854	SWIFT_J1749.4-2807	700	A	YES	
P0704855	IGR_J17511-3057	700	A	YES	
P0704856	Swift_J1756.9-2508	700	A	YES	
P0704857	HETE_J1900.1-2455	700	A	YES	
P0704858	IGR_J17379-3747	700	A	YES	
P0704859	NGC_6440 X-2	700	A	YES	
P0704860	SAX J1748.8-2021	700	A	YES	
P0704861	XTE J1814-338	700	A	YES	

P0704862	XTE J1807-294	700	A	YES	
P0704863	XTE J1751-305	700	A	YES	
P0704864	SAX_J1808.4-3658	700	B	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	申请人拟利用慧眼观测数据系统地对大质量 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 Lcrit，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 Swift/BAT 或 MAXI 流量大于 100mCrab，其中最弱的三颗源触发流量为 50 mCrab。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 Lcrit 前后吸积盘的性质，以及 X 射线辐射对伴星的影响。		

Special requirement	Coordinated observations.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704865	new source 1	600	A	YES	
P0704866	4U_0115+634	600	A	YES	
P0704867	Swift_J0243.6+6124	600	A	YES	
P0704868	1A_0535+262	600	A	YES	
P0704869	GRO_J1750-27	600	A	YES	
P0704870	4U_1901+03	600	A	YES	

P0704871	IGR_J19294+1816	600	A	YES	
P0704872	XTE_J1946+274				

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	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 NICER 和 Insight-HXMT 的联合观测得以解决，利用这两个卫星在软 X 射线和硬 X 射线能段的联合观测，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。

	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。根据 NICER 和慧眼的准联合观测，给出了其长时标的能谱演化，表明其流量和吸积盘半径符合标准吸进盘模型，表明其吸积物质大部分不会落在中子星表面而是外流出去。这和热核暴的出现频率比模型预言低符合。
Special requirement	

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704874	4U 0614+09	300	A	YES	
P0704875	4U 1728-34	300	A	YES	
P0704876	SAX_J1808.4-3658	300	A	YES	

P0704877	4U_1820-303	300	A	YES	
Title	重返硬态的 clocked burster 研究		PI	Dr.LongJi	
ABSTRACT	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 100mCrab。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。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704878	GS 1826-238	36	A	YES	PhD Research Program

Title	Search for Harmonics of Known Cyclotron Lines			PI	Mr.AlexanderSalganik
ABSTRACT	X-ray pulsars (XRPs) 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 XRPs 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 emission processes. We propose to use Insight-HXMT to observe 2 XRPs from our pulsar list with already known CRSFs at energies up to 55 keV that have no known harmonics with an exposure time of 150 ks per source (300 ks in total). HXMT is the perfect instrument for this task due to its unique spectral broad-range capabilities.				
Special requirement	Two of the following sources will be triggered if scientifically justified.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0704879	SXP15.3	150	A	YES	PhD Research Program
P0704880	SMC_X-2	150	A	YES	
P0704881	RX J0520.5-6932	150	A	YES	PhD Research Program
P0704882	SWIFT_J0541.5-6826	150	A	YES	
P0704883	IGR J06074+2205	150	A	YES	PhD Research Program
P0704884	MXB_0656-072	150	A	YES	
P0704885	1A 1118-615	150	A	YES	
P0704886	GX_304-1	150	A	YES	

P0704887	MAXI_J1409-619	150	A	YES	
P0704888	2S_1553-542	150	A	YES	
P0704889	4U_1626-67	150	A	YES	
P0704890	IGR_J16393-4643	150	A	YES	
P0704891	IGR J17329-2731	150	A	YES	PhD Research Program
P0704892	GRO_J1750-27	150	A	YES	
P0704893	SAX J1802.7-2017	150	A	YES	
P0704894	SWIFT J1808.4-1754	150	A	YES	PhD Research Program

P0704895	XTE_J1829-098	150	A	YES	
P0704896	SWIFT_J1845.6+0051	150	A	YES	
P0704897	XTE_J1858+034	150	A	YES	
P0704898	Cep_X-4	150	A	YES	

Title	An Insight-HXMT view of the galactic ultraluminous X-ray pulsar Swift J0243.6+6124	PI	Dr.HonghuiLiu
ABSTRACT	Five Insight-HXMT observations each with 30 ks exposure are requested to observe the next out- 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	Coordinated observations.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704899	Swift_J0243.6+6124	150	A	YES	
Title	An Insight-HXMT view of the disk wind in GRS 1915+105		PI	Dr.HonghuiLiu	
ABSTRACT	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 GRS 1915+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.				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704900	GRS_1915+105	150	A	YES	
Title	Hunting for cyclotron resonance scattering features in three accreting pulsars		PI	Dr.LorenzoDucci	
ABSTRACT	We propose to observe three high-mass X-ray binaries containing pulsars, KS 1947+300, XTEJ1859+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.				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704901	XTE J1859+083	200	A	YES	PhD Research Program
P0704902	KS_1947+300	200	B	YES	
P0704903	EXO_2030+375	200	B	YES	
Title	基于能量守恒模型研究黑洞 X 射线双星的能谱-时变特性		PI	Dr.RuicanMa	

ABSTRACT	在黑洞 X 射线双星的爆发期间，其能谱成分通常由高能的冕和低能的盘组成。然而，在中间态时，源的高能辐射成分是复杂的，这使得唯一地确定冕几何和吸积盘几何的物理参数（例如多个冕成分以及盘截断问题）变得困难。快速时变提供了一种独立检验黑洞 X 射线双星吸积几何的方法，其中，冕的 Lense-Thirring 进动是解释快速时变现象，特别是低频准周期振荡的常见模型之一。本提案计划基于能量守恒的能谱模型，利用能谱拟合给出的吸积盘截断半径及其与 QPO 频率的相关性来检验冕的 Lense-Thirring 进动模型，从而进一步理解黑洞 X 射线双星的吸积几何。 慧眼卫星具有宽能段（1-250 keV）和高时间分辨率的优势，使其能够深入研究黑洞 X 射线双星的盘和冕成分。因此，本提案旨在申请慧眼-HXMT 490 ks 的 ToO 观测时间，以监测一个黑洞 X 射线双星的强爆发源，并在爆发上升阶段、硬态、中间态、软态及爆发下降阶段的硬态获取高统计的观测数据。基于能量守恒模型所给出的吸积盘的截断半径及其与 QPO 频率的关系，以进一步测试冕的 Lense-Thirring 进动模型。
Special requirement	

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704904	MAXI_J1659-152	490	A	YES	

P0704905	Swift J1745.1-2624	490	A	YES	
P0704906	MAXI_J1631-479	490	B	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，限制二型暴产生的物理机制。				
Special requirement					

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704907	MXB_1730-33	100	A	YES	
P0704908	GRO_J1744-28	100	A	YES	

Title	Measuring the speed of compact jet in 4U 1820-30 using Insight-HXMT monitoring	PI	Dr.VarunBahal

ABSTRACT	We propose 3 days of monitoring of low mass X-ray binary (LMXB) source 4U 1820-30. This source is composed of a neutron star (NS) accreting matter from a white dwarf (WD) companion in an 11.4 min tight orbit1,2. In addition, this source is known to have a peculiar quasi-periodic (~170 days) X-ray intensity cycle3. The source exhibits high X-ray emission with soft X-ray spectra during most of this accretion cycle. However, it switches to a low state with hard X-ray spectra for a few weeks in the accretion cycle during which it exhibits type-I X-ray bursts every 4-5 hours4. By measuring the lags between X-ray and radio emission variability related to type-I X-ray bursts, we aim to measure the speed of the relativistic jet in this source. Owing to HXMT's high effective area and broadband capability, we will be able to conduct the necessary temporal and spectral analysis to properly characterize the spectral state and X-ray variability in this source to achieve our scientific objective. We plan to propose simultaneous radio observations of this source with the 40m radio telescope at Yunnan observatories. The determination of jet speed in this source will help to

	expand our understanding of relativistic jets.				
Special requirement	Coordinated observations. Recommend applying for coordinated observation with the radio telescope array.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704909	4U_1820-303	252	A	YES	
Title	利用 X 射线和射电协同观测探究黑洞 X 射线双星中冕和喷流的关联		PI	Dr.Zhen Yan	

ABSTRACT	近年来，多项研究结果暗示冕的能谱和光变演化和随后的间歇性喷流存在某种关联，有望为揭示喷流的产生机制和能量来源提供重要研究价值，是吸积和喷流物理的一个非常有前景的研究方向。间歇性喷流往往对应着强烈的射电闪耀和相对论性的喷发，申请人和合作者计划利用上海天文台的 65 米和 25 米射电望远镜组成短基线阵列监测喷流射电流量的变化以及短时标光变，利用东亚 VLBI 网（EAVN）或者欧洲 VLBI 网（EVN）监测喷流的运动，利用慧眼卫星监测喷流喷发前后冕的能谱和时变演化，通过监测冕和喷流的演化，揭示冕和喷流之间的直接关联。				
Special requirement	Coordinated observatios				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704910	GRS_1915+105	150	A	YES	
Title	黑洞 X 射线双星的吸积盘截断研究：盘冕散射效应和硬化因子的演化		PI	Dr.RuicanMa	

ABSTRACT	黑洞 X 射线双星在爆发的硬态阶段通常被认为包含一个流量占比较低的吸积盘成分和一个流量占比较高的冕成分。然而，关于该阶段的吸积盘是否被截断存在着争议。由于硬态的冕成分相对显著，它会对盘成分的光子产生强烈的散射，从而导致低估盘辐射和盘半径。此外，在爆发初期，光学厚的吸积盘可能尚未完全形成，而是正在从热冕逐渐凝聚成吸积盘的过程中。在这个过程中，硬化因子 f 会发生演化，因此使用固定的 f 硬化因子会导致对盘半径的估计不准确。 慧眼卫星具有宽能段（1-250 keV）和大有效面积的特点，使其能够很好地研究黑洞 X 射线双星的盘和冕成分，并进一步研究硬化因子 f 的演化。因此，本提案旨在申请慧眼-HXMT 300 ks 的 ToO 观测时间，以监测一个黑洞 X 射线双星的强爆发源，并获取爆发上升阶段、中间态和软态的高统计观测数据。基于盘冕散射过程和硬化因子的演化，我们将研究硬态期间吸积盘是否存在截断的问题。
Special requirement	

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704911	XTE_J1752-223	300	B	YES	

Title	HXMT-极光联合观测：吸积 X 射线脉冲星 mHz QPO 的基本特性研究	PI	Dr.RuicanMa
ABSTRACT	吸积 X 射线脉冲星中 mHz QPO 的起源问题一直备受争议。这需要宽能段、高统计和密集的观测数据来验证 mHz QPO 的理论模型，以进一步理解吸积 X 射线脉冲星中的吸积辐射过程。此外，偏振观测也可以对脉冲星的辐射区几何形状进行限制。慧眼卫星具备宽能段和大有效面积的特点，而极光 2 计划则是目前在轨运行的 X 射线偏振探测设备。基于此，我们提出申请慧眼卫星 450 ks 的 ToO（Target of Opportunity）观测时间，与极光 2 计划联合观测一个吸积 X 射线脉冲星，以研究 mHz QPO 的产生机制和脉冲星的偏振性质。我们的候选源包括 Swift/BAT 探测到的流量接近或超过 1 Crab 的三个吸积 X 射线脉冲星，分别是 V0332+53、GRO J1744-28 和 GX 304-1。通过这次观测，我们期望可以揭示 mHz QPO 的产生机制，从而更加深入地研究这类特殊天体的辐射物理过程。		
Special requirement	Coordinated observatios		

Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0704912	V_0332+53	450	A	YES	
P0704913	GX_304-1	450	A	YES	
P0704914	GRO_J1744-28	450	A	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 energy resolution 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 BH XRB. 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
P0704915	XTE_J1550-564	100	A	YES	
P0704916	4U_1630-472	100	A	YES	
P0704917	GRO_J1655-40	100	A	YES	
P0704918	GX_339-4	100	A	YES	
P0704919	GRS_1716-249	100	A	YES	
P0704920	Swift J1727.8-163	100	A	YES	
P0704921	H_1743-322	100	A	YES	

P0704922	MAXI_J1820+070	100	A	YES	
P0704923	MAXI_J1348-630	100	B	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

P0704924	NEW_BH	400	A	YES	
P0704925	MAXI_J1535-571	400	A	YES	
P0704926	XTE_J1650-500	400	A	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 SGR J1935+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
P0704929	new_source	50	A	YES	
P0704930	new_source_2	50	A	YES	
P0704931	GRB200415A	50	A	YES	
P0704932	GRB231115A	50	A	YES	

P0704933	CXOU_J010043.1−721134	50	A	YES	
P0704934	4U_0142+61	50	A	YES	
P0704935	LS_I_+61_303	50	A	YES	
P0704936	SGR_0418+5729	50	A	YES	
P0704937	SGR_0501+4516	50	A	YES	
P0704938	SGR_0526−66	50	A	YES	
P0704939	PSR_J0726–2612	50	A	YES	
P0704940	SGR_0755-2933	50	A	YES	

P0704941	FRB20220428	50	A	YES	
P0704942	FRB20200120E	50	A	YES	
P0704943	FRB20211204	50	A	YES	
P0704944	1E_1048.1-5937	50	A	YES	
P0704945	Swift_J1555.2-5402	50	A	YES	
P0704946	1E_161348-5055.1	50	A	YES	
P0704947	PSR_J1622-4950	50	A	YES	
P0704948	SGR_1627-41	50	A	YES	

P0704949	CXOU J164710.2−455216	50	A	YES	
P0704950	1RXS_J170849.0-400910	50	A	YES	
P0704951	CXOU_J171405.7-381031	50	A	YES	
P0704952	PSR_J1718−3718	50	A	YES	
P0704953	SGR_J1745-2900	50	A	YES	
P0704954	SGR_1801-23	50	A	YES	
P0704955	SGR_1808-203	50	A	YES	
P0704956	SGR_1806-20	50	A	YES	

P0704957	XTE_J1810-197	50	A	YES	
P0704958	Swift_J1818-1607	50	A	YES	
P0704959	FRB20240114A	50	A	YES	
P0704960	PSR_J1819−1458	50	A	YES	
P0704961	PSR_J1119-6127	50	A	YES	
P0704962	PSR_J1846-0258	50	A	YES	
P0704963	SGR_1830-0645	50	A	YES	
P0704964	SGR_2013+34	50	A	YES	

P0704965	AX_J1845.0-0258	50	A	YES	
P0704966	AX_J1818.8-1559	50	A	YES	
P0704967	1E_2259+586	50	A	YES	
P0704968	SGR_1935+2154	50	A	YES	
P0704969	SGR_1900+14	50	A	YES	
P0704970	3XMM_J185246.6+003317	50	A	YES	
P0704971	1E_1841-045	50	A	YES	
P0704972	Swift_J1834.9-0846	50	A	YES	

P0704973	SGR_1833-0832	50	A	YES	
P0704974	Swift_J1822.3-1606	50	A	YES	
P0704975	1E_1547.0-5418	50	A	YES	

Title	Optical/Infrared –X-ray Correlations in Low-Mass X-ray Binaries	PI	Dr.GuobaoZhang

ABSTRACT	Several studies have shown that there is a global correlation between X-ray and optical-infrared (OIR)/ultraviolet (UV) emissions in low-mass X-ray binaries (LMXBs). However, the emission processes in these energies are still poorly understood. Detailed studies with (quasi-) simultaneous OIR and X-ray data of LMXBs throughout a whole outburst are lacking. Therefore a monitoring program in both X-ray and OIR is crucial for studying the correlation between the X-ray and optical properties of these systems in detail. We propose a joint monitoring program with HXMT, Einstein Probe (EP), Faulkes Telescopes and Las Cumbres Observatory (LCO) network. The Faulkes Telescope observations are part of an ongoing monitoring campaign of more than 50 LMXBs We expect to track the OIR-X-ray correlation of several LMXBs in detail during the HXMT and EP operation time, with both recurrent outbursts of known targets and new transient sources found or followed by EP and HXMT. In addition, it has been found that the nature of the compact object in the binary system, the mass of the companion, and the distance/reddening can be constrained by (quasi-)

	simultaneous OIR and X-ray luminosities. These can be used soon after discovery to identify the nature of future HXMT discovered sources.				
Special requirement	Coordinated observations.				
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704976	New_Source	300	A	YES	
P0704977	GRO_J0422+32	30	A	YES	
P0704978	MAXI_J0556-332	300	A	YES	
P0704979	1A_0620-00	300	A	YES	

P0704980	GRS_1009-45	300	A	YES	
P0704981	GRS_1124-68	300	A	YES	
P0704982	MAXI_J1348-630	300	A	YES	
P0704983	GS_1354-64	300	A	YES	
P0704984	Cen X-4	300	A	YES	
P0704985	4U_1608-52	300	A	YES	
P0704986	XTE_J1650-500	300	A	YES	
P0704987	MAXI_J1659-152	300	A	YES	

P0704988	GX_339-4	300	A	YES	
P0704989	XTE_J1752-223	300	A	YES	
P0704990	MAXI J1836-194	300	A	YES	
P0704991	XTE_J1859+226	300	A	YES	
P0704992	SWIFT_J1910.2-0546	300	A	YES	
P0704993	Aql_X-1	300	A	YES	
P0704994	GS_2000+25	300	A	YES	
P0704995	V_404_Cyg	300	A	YES	

P0704996	XTE_J2123-058	300	A	YES	

Title	研究中子星 X 射线双星中吸积盘反射与 kHz QPOs 的联系	PI	Dr.YananWang

ABSTRACT	在中子星 X 射线双星中发现的 kHz QPOs 处的延迟往往为软延迟，且其频率与该系统中的内部吸积流的轨道频率相吻合的。由于吸积盘反射过程主要发生在吸积盘内部且该过程对应的延迟为软延迟，因而人们认为 kHz QPOs 可能来源于此过程。4U1608-52 是目前少有既有 kHz QPOs 又有盘反射存在的源。鉴于这两者都主要存在于爆发的流量上升的阶段，申请人因而提议对目标源 4U1608-52 的在此阶段进行密集观测。
Special requirement	Coordinated observations.

Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0704997	4U_1608-52	250	A	YES	

Title	银河系磁星活跃期的多波段观测	PI	Dr.LIXiaobo

ABSTRACT	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。
Special requirement	Coordinated observations.

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0704000	SGR_0501+4516	50	A	YES	
P0704001	SGR_1833-0832	50	A	YES	
P0704002	Swift_J1834.9-0846	50	A	YES	
P0704003	1E_1841-045	50	A	YES	
P0704004	AX_J1845.0-0258	50	A	YES	
P0704005	PSR J1846-0258	50	A	YES	
P0704006	SGR_2013+34	50	A	YES	

P0704007	1E_2259+586	50	A	YES	
P0704008	SGR_1900+14	50	A	YES	
P0704009	3XMM_J185246.6+003317	50	A	YES	
P0704010	SGR_1935+2154	50	A	YES	
P0704998	4U_0142+61	50	A	YES	
P0704999	SGR_0418+5729	50	A	YES	
Title	A new outburst of SAX J1808.4-365		PI	Dr.LingdaKong	

ABSTRACT	SAX J1808.4-3658 is an accreting millisecond X-ray pulsar with 401 Hz pulsations. After the last outburst in 2019, the source's flux increased recently, indicating that it might have entered a new outburst. The evolution of the pulse profile, along with the increasing accretion rate, is an interesting issue that can characterize the development of the magnetic pole's accretion geometry and emission site on the neutron star surface. The plasma channeled by the magnetosphere will finally release all kinetic energy into X-ray emission; the Insight-HXMT will have an opportunity to study the pulse profile in the high-energy band. The Insight-HXMT has the largest effective area for X-rays above 50 keV, which is a great advantage in learning the origin of non-thermal pulsed emission at the polar caps and related accretion geometry. Also, a bright helium-fueled Type I X-ray burst with the burst oscillation was detected from this source's 2019 outburst. Observations in the high-energy band can study the interaction of thermonuclear bursts with their surroundings.				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705011	SAX_J1808.4-3658	200	B	YES	

Title	用慧眼卫星观测银河系软伽马射线重复暴 SGR J1935+2154	PI	Ms.Caojiaxin
ABSTRACT	快速射电暴（FRB）是一种明亮的射电爆发现象，其起源尚未得到解释。寻找这些事件的多波段对应物可以对发射机制和物理起源进行严格的约束。银河系软伽马射线重复暴(SGR) SGR J1935+2154 是首个被发现与 FRB 有着密切联系的 SGR。从 2014 年至今，SGR J1935+2154 经历了多次活跃期，已观测到的爆发超过 300 个。其中在 2020 年 4 月 28 日，Insight-HXMT 和 CHIME 射电望远镜分别观测到来自 SGR J1935+2154 的 X 射线暴和与之成协的快速射电暴。该事件有力的证明了 FRB 磁陀星起源的假说。考虑到 SGR 与 FRB 的密切关系，SGR J1935+2154 的 SGR 现象或许也存在这类似 FRB 的周期行为。FRB 200428 目前还没有被观测到周期行为，但其与 SGR J1935+2154 的 X 射线爆发之间的关联，以及这些 X 射线爆发呈现的周期行为有助于我们更进一步展开对 FRB 的起源的研究。 为进一步探究 SGR J1935+2154 与 FRB 的起源联系，以及 SGR J1935+2154 的周期性问题，我们希望利用 Insight-HXMT 和光学望远镜对 SGR J1935+2154 进行多波段同步观测。在 SGR J1935+2154 可能存在的两个约 135 天的活跃期，用 Insight-HXMT 和光学望远镜对其进行多次同步观测。		
Special requirement			

Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705025	SGR_1935+2154	360	A	NO	PhD Research Program

Title	利用 HXMT 与 IXPE 卫星联合观测限制黑洞 X 射线双星的吸积几何	PI	Dr.Zi-XuYang

ABSTRACT	低质量黑洞 X 射线双星的能谱中主要包括冕所辐射出的非热成分以及标准吸积盘所辐射出的热成分，目前人们对于这一双相吸积流成分达成了初步的共识，但是关于低硬态、中间态的吸积几何具体是什么样的，仍然存在很大的争议，这一问题主要围绕冕区的物理本质与几何位置以及吸积盘是否截断展开。关于冕区的物理本质，大部分研究认为其与低吸积率下的径移主导吸积流有关，也有研究认为喷流会充当冕区的角色；而关于冕区的几何位置，人们提出过 lamp-post 几何、截断盘模型下的圆柱几何、三明治冕几何等等位形。关于吸积盘的认识也存在其内半径是否抵达了最内稳定轨道半径的争论。因此，为了探究低硬态到中间态期间的吸积流几何演化，我们决定联合 HXMT 与 IXPE 卫星对于 4U 1630-472、Cyg X-1 等多个黑洞 X 射线双星开展密集的观测，通过时变分析、能谱拟合、偏振测量三种手段，限制从低硬态到中间态期间冕与吸积盘的相对位置与几何形态。

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705841	4U 1630-472	600	A	NO	
Title	Vela 脉冲星的 MeV 脉冲结构及能谱性质研究		PI	Dr.gemingyu	
ABSTRACT	脉冲星 MeV 能段的观测结果对于理解脉冲星辐射区的几何结构和性质至关重要。探测到脉冲星存在 MeV 脉冲辐射的源只有四颗，而当前的观测结果表明，MeV 的观测质量非常差。慧眼 HXMT 高能望远镜的 CsI 探测器有效面积（低增益），是目前最大的 MeV 探测器。之前观测结果表明，Vela 脉冲星在 1-5MeV 的脉冲轮廓存在精细结构。因此，本提案拟再申请 2Ms 慧眼的高能望远镜低增益观测，详细研究 MeV 脉冲轮廓和能谱性质。				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705873	Vela Pulsar	2000	A	NO	
Title	黑洞暂现源反响映射观测提案申请		PI	Dr.微于	
ABSTRACT	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。				

Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705927	MAXI_J1348-630	300	B	YES	
Title	Studying the burst-disk interaction from Ultracompact X-ray binaries 4U 1820-30		PI	Dr.ZhaoshengLi	
ABSTRACT	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).				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0705928	4U_1820-303	800	A	NO	

(3) Calibration proposals

Title	慧眼-HXMT 在轨标定

ABSTRACT					
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note
P0702838	SAS_053431+220054_7.00	-	A	NO	
P0702839	Cas A	691	A	NO	
P0702840	Crab	388	A	NO	

Title	The blank sky observations for the background research of Insight-HXMT				
ABSTRACT	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。 申请 2024-2025 观测季（1 年）的空天区观测 130 次，总曝光时间 2.2 Ms。				
Special requirement					
Obs No.	Target	Exp. Duration	Grade	ToO?	Note

P0701732	HXMT-Blanksky-21	130	A	NO	
P0701733	HXMT-Blanksky-20	130	A	NO	
P0701734	HXMT-Blanksky-19	130	A	NO	
P0701735	HXMT-Blanksky-16	130	A	NO	
P0701736	HXMT-Blanksky-15	130	A	NO	
P0701737	HXMT-Blanksky-14	130	A	NO	
P0701738	HXMT-Blanksky-12	130	A	NO	
P0701739	HXMT-Blanksky-11	130	A	NO	

P0701740	HXMT-Blanksky-10	130	A	NO	
P0701741	HXMT-Blanksky-8	130	A	NO	
P0701742	HXMT-Blanksky-6	130	A	NO	
P0701743	HXMT-Blanksky-5	130	A	NO	
P0701744	HXMT-Blanksky-4	130	A	NO	
P0701745	HXMT-Blanksky-3	130	A	NO	
P0701746	HXMT-Blanksky-2	130	A	NO	
P0701747	HXMT-Blanksky-1	130	A	NO	