# HXI Data Analysis

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# **Download Software**

http://aso-s.pmo.ac.cn/sodc/analysisSoftware.jsp

	Advances	l Space-ba	sed So	lar Obse	watory	
	Sci	ence Operation	and Data	Center		
Quick Look	Data Access	Analysis Software	Guide	Operation	Back Home	
		Analysis Software	tware			
hxi_gui_v1.2	2beta_v20230410.zip					
<u>lst_2023041</u>	<u>0.zip</u>					
<u>fmg_202304</u>	<u>410.zip</u>					

# **Start HXI GUI**

IDL> CD,'D:\HXI\_GUI\_v1.2beta'
IDL> .run HXI\_ENV\_SET.pro
% Compiled module: HXI\_ENV\_SET.
IDL> HXI\_ENV\_SET

The HXI environment is set successfully! The HXI environment path has been updated!

IDL> hxi

% ASTROLIB: Astronomy Library system variables have been added % DEVICELIB: Added system variable !BCOLOR

% DEVICELIB: Added system variable !ASPECT

Beta Version 1.2

## Overview

HXI Main Window

### ➢Quicklook

≽Image

≻LC/Spectrum

File Plot_Control Window_Control Help	
	Quicklook LC/Spectrum Image
	Working Time Range:
HXI DATA ANALYSIS	23-Feb-2023 06:08:00.000
	23-Feb-2023 06:20:00.000
	Flare ID: Check
Use the buttons under File to:	Select Data to Plot: Thin
1. Set plot preferances	
2. Configure plot file	Select Flags to Display: Al
3. Creat plot file	
4. Export data	
	Night Calibration L
	Plot Quicklook Plot GOES
HXI software changes are documented at	
nttp://aso-s.pmo.ac.cn/nxi/nxi_nelp.ntml	
Beta Version 1.2	

Check

Edit

 $\sim$ 

Help

All None

Flare mode

🗌 LST

Start Time

End Time

Quit

# Quicklook

## ≻Set working time range

## ≻Select Data

➢Plot Quicklook curve

≻Plot GOES flux



Quicklook LC/Spectrum Image Working Time Range: 23-Feb-2023 06:08:00.000 Start Time 23-Feb-2023 06:20:00.000 End Time Check Edit  $\sim$ Flare ID:  $\sim$ Thin Select Data to Plot: Select Flags to Display: All None SAF SAA ✓ Flare mode Calibration Night LST Help Plot Quicklook Plot GOES Quit

# Image

HXI Main Window

#### ≻Set

✓ Image Time Range
✓ Image Energy Bins
✓ Detector Range

Select Image method

Select plot region (FOV)Plot image and save to fits

# File Plot Control Window Control Help ASO-S HXI X-ray | 20.0-50.0 keV | HXI\_Clean image 23-Feb-23 06:13:12.000 to 06:13:22.000 -300 X (arcsec)



# LC/Spectrum

## ► Generate spectrum using HXI GUI

**≻**Set

✓LC/Spectrum Time Range ✓LC Energy Bins (keV) ✓ Detector ID

Select Units

Select time bins

► Plot Spectra and save to fits



all

all BkG

Quit

# Spectral analysis using OSPEX

- ≻Start Ospex and set HXI
  - ✓o=ospex()
  - ✓o->set,spex\_file\_reader='hxi'
- ≻Read HXI energy spectrum
  - and response matrix data.

≻Plot Time Profile or Plot Spectrum



# Spectral Fit

✓ Select Background



## ✓ Fit Options and Do Fit

