



17874 - Resolving multi-phase outflows in a $z=0.615$ massive galaxy with Chandra and HST

Cycle: 32, Proposal Category: GO
(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Ming Sun (CoI)	University of Alabama in Huntsville

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) SRGAJ175701+590751	ACS/WFC	1	31-Dec-2024 10:00:12.0	yes
02	(1) SRGAJ175701+590751	STIS/CCD STIS/NUV-MAMA	2	31-Dec-2024 10:00:13.0	yes

3 Total Orbits Used

ABSTRACT

AGN outflows are among the most vital signatures of strong AGN feedback, but exactly how they can quench galaxy star formation remains an open question. We propose a joint Chandra-HST observation targeting SRGA J175701+590751 for an exploratory spectral and imaging analysis. The target is an ultra-massive galaxy with hyperluminous IR luminosity at $z=0.615$. Our proposed observations will study its X-ray and UV outflows suggested by archival Swift/XRT and Subaru HDS observations to study AGN feedback processes in a prime candidate for ongoing SF quenching.

OBSERVING DESCRIPTION

We will observe the a hard X-ray selected quasar with broad-absorption lines and hyper-luminous infrared luminosity with quasar with hyper-luminous infrared luminosity and hard X-ray detection with the STIS UV spectroscopy using the G230LB filter for two orbits to study the UV spectrum of our target. We will also observe the target with ACS imaging with F814W and F502N for one orbit.

Proposal 17874 - Visit 01 - Resolving multi-phase outflows in a $z=0.615$ massive galaxy with Chandra and HST

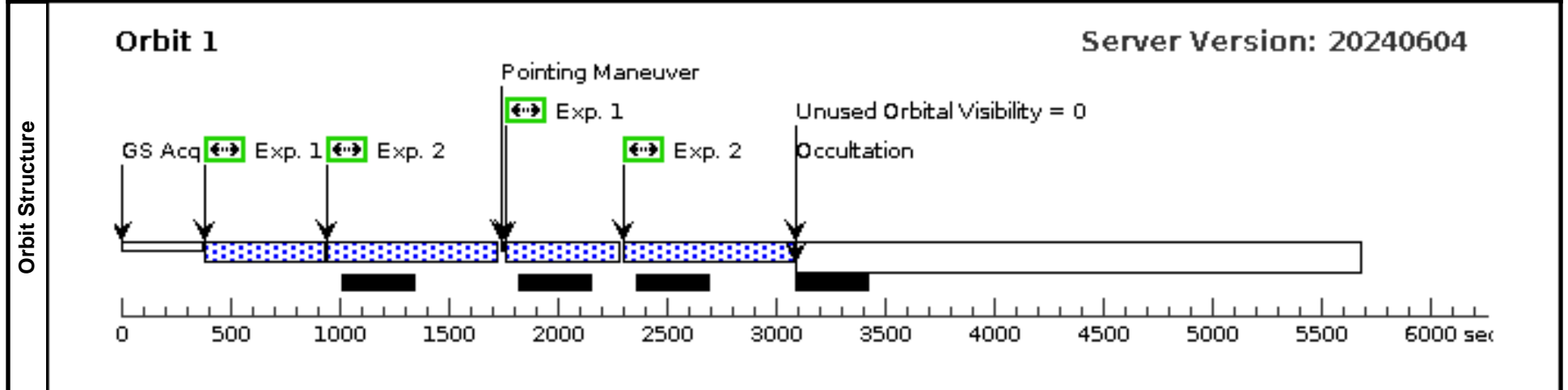
Tue Dec 31 15:00:13 GMT 2024

Visit	Proposal 17874, Visit 01, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: ACS/WFC		
	Special Requirements: (none)		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85 Angle Between Sides= Center Pattern=false	(1-2)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	SRGAJ175701+590751	RA: 17 57 0.2654 (269.2511058d) Dec: +59 08 0.25 (59.13340d) Equinox: J2000	Redshift: 0.615	V=15.44 GALEX 7.5" photometry: 18.41 39mag in NUV; 21.1025mag in FUV	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[QUASAR, ULTRALUMINOUS IR GAL]					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) SRGAJ175701+590751	ACS/WFC, ACCUM, WFC	F814W			Pattern 1, Exps 1-2 in Visit 01 (1)	350 Secs (698 Secs) [=>349.0 Secs (Pattern 1)] [=>349.0 Secs (Pattern 2)]	[1]
	2		(1) SRGAJ175701+590751	ACS/WFC, ACCUM, WFC	F502N	FLASH=25		Pattern 1, Exps 1-2 in Visit 01 (1)	600 Secs (1198 Secs) [=>599.0 Secs (Pattern 1)] [=>599.0 Secs (Pattern 2)]	[1]



Proposal 17874 - Visit 02 - Resolving multi-phase outflows in a $z=0.615$ massive galaxy with Chandra and HST

Tue Dec 31 15:00:13 GMT 2024

Visit	Proposal 17874, Visit 02 Diagnostic Status: No Diagnostics Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(1)	SRGAJ175701+590751 Alt Name1: AKARIJ1757+5907 Alt Name2: WISEAJ175700.26+5908 00.2	RA: 17 57 0.2654 (269.2511058d) Dec: +59 08 0.25 (59.13340d) Equinox: J2000	Redshift: 0.615	V=15.44 GALEX 7.5" photometry: 18.41 39mag in NUV; 21.1025mag in FUV	Reference Frame: ICRS			
	<i>Comments:</i> Category=GALAXY Description=[QUASAR, ULTRALUMINOUS IR GAL]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.193 9996)	(1) SRGAJ175701+5 90751	STIS/CCD, ACQ, F28X50LP	MIRROR				0.2 Secs (0.2 Secs)	
									[==>]	[1]
	2	(STIS.ta.193 9851)	(1) SRGAJ175701+5 90751	STIS/CCD, ACQ/PEAK, 52X0.1	G230LB 2375 A				0.6 Secs (0.6 Secs)	
									[==>]	[1]
3	(STIS.sp.19 39921)	(1) SRGAJ175701+5 90751	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				1923 Secs (1923 Secs)		
								[==>]	[1]	
4	(STIS.sp.19 39921)	(1) SRGAJ175701+5 90751	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				2700 Secs (2691 Secs)		
								[==>2691.0 Secs]	[2]	

