



11836 - Chandra Imaging of NGC 922 -- the closest collisional ring galaxy

Cycle: 17, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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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) NGC-0922	WFC3/UVIS	3	20-Nov-2008 21:00:53.0	yes

3 Total Orbits Used

ABSTRACT

Ultra Luminous X-ray sources (ULX) have luminosities many times the Eddington limit for a stellar black hole and are associated with massive star formation.

This is illustrated by the Chandra image of the Cartwheel, a collisional ring

galaxy. The bulk of the X-ray luminosity is produced by 16 ULX co-incident with the outer ring of star formation. We request Chandra and HST time to image another collisional ring galaxy NGC 922. NGC 922 is similar to the Cartwheel, except that it is nearly three times closer and has higher metallicity. We will (1) detect fainter sources than was possible for the Cartwheel, (2) use archival HST data and our new H α images to associate X-ray sources with tracers of star formation and (3) study the effect of metallicity on the formation of ULX.

OBSERVING DESCRIPTION

This proposal involves H-alpha line and continuum imaging of the nearby collisional ring galaxy NGC 922. The F665N filter is used to image the redshifted H-alpha line and the F621 filter used to image the continuum. We require at least 5000s in the line filter and 1500s in the continuum. One of our science goals is to determine the positions of bright X-ray sources relative to the H-alpha ring. We therefore opt to use the UVIS-CENTER aperture and a LINE dither to fill in the chip gaps (as well as eliminate hot pixels and cosmic ray hits).

Proposal 11836 - Visit 01 - Chandra Imaging of NGC 922 -- the closest collisional ring galaxy

Visit	Proposal 11836, Visit 01										Fri Nov 21 02:00:58 GMT 2008
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFC3/UVIS										
	Special Requirements: (none)										
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(1)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=2.0 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false			Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false			(1-2)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(1)	NGC-0922	RA: 02 25 4.4000 (36.2683333d) Dec: -24 47 17.00 (-24.78806d) Equinox: J2000				V=12.12		Reference Frame: ICRS		
	Comments: This object was generated by the targetselector and retrieved from the NED database.										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
	1		(1) NGC-0922	WFC3/UVIS, ACCUM, UVIS-CENTER	F665N	CR-SPLIT=NO		Pattern 1-2 (1)	1200 Secs		
									[==>2169.0 Secs (Pattern 1,1)]		[1]
									[==>(Pattern 1,2)]		
									[==>(Pattern 2,1)]		[2]
									[==>2093.0 Secs (Pattern 2,2)]		[3]
	2		(1) NGC-0922	WFC3/UVIS, ACCUM, UVIS-CENTER	F621M	CR-SPLIT=NO		Pattern 1-2 (1)	330 Secs		
									[==>600.0 Secs (Pattern 1,1)]		[1]
								[==>353.0 Secs (Pattern 1,2)]		[2]	
								[==>(Pattern 2,1)]			
									[==>(Pattern 2,2)]		[3]



