



13704 - Testing the single degenerate channel for supernova Ia

Cycle: 22, 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) TYC-6996-449-1	STIS/CCD STIS/FUV-MAMA	1	13-Nov-2014 21:08:32.0	yes
02	(2) TYC-9151-303-1	COS/FUV COS/NUV	1	13-Nov-2014 21:08:34.0	yes
03	(3) LAMOST-J1122+5236	COS/FUV COS/NUV	1	13-Nov-2014 21:08:36.0	yes
04	(4) TYC-7218-934-1	COS/FUV COS/NUV	1	13-Nov-2014 21:08:37.0	yes
05	(4) TYC-7218-934-1	COS/FUV COS/NUV	1	13-Nov-2014 21:08:39.0	yes

<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>
06	(5) LAMOST-J1445+1236	STIS/CCD STIS/FUV-MAMA	1	13-Nov-2014 21:08:40.0	yes
07	(6) TYC-6760-497-1	STIS/CCD STIS/FUV-MAMA	1	13-Nov-2014 21:08:41.0	yes
08	(7) LAMOST-J1528+4305	COS/FUV	1	13-Nov-2014 21:08:42.0	yes
09	(8) TYC-6917-654-1	COS/FUV	1	13-Nov-2014 21:08:44.0	yes
10	(9) CD-68-2365	STIS/CCD STIS/FUV-MAMA	1	13-Nov-2014 21:08:45.0	yes

10 Total Orbits Used

ABSTRACT

The progenitors of supernova Ia are close binaries containing white dwarfs. Of crucial importance to the evolution of these systems is how much material the white dwarf can stably accrete and hence grow in mass. This occurs during a short-lived intense phase of mass transfer known as the super soft source (SSS) phase. The short duration of this phase and large extinction to soft X-rays means that only a handful are known in our Galaxy. Far more can be learned from the underlying SSS progenitor population of close white dwarf plus FGK type binaries. Unfortunately, these systems are hard to find since the main-sequence stars completely outshine the white dwarfs at optical wavelengths. Because of this, there are currently no known close white dwarf binaries with F, G or early K type companions, making it impossible to determine the contribution of the single degenerate channel towards supernova Ia. Using the GALEX and RAVE surveys we have now identified the first large sample of FGK stars with UV excesses, a fraction of which are these illusive, close systems. Following an intense ground based spectroscopic investigation of these systems, we have identified 5 definite close binaries, with periods of less than a few days. Here we apply for COS spectroscopic observations to measure the mass and temperature of the white dwarfs in order to determine the future evolution of these systems. This will provide a crucial test for the single degenerate channel towards supernova Ia.

OBSERVING DESCRIPTION

The aim of this proposal is to obtain far-ultraviolet COS spectra of white dwarfs in close binary systems with F, G or early K type main-sequence companions in order to measure their masses and determine if they are viable supernova Ia progenitors. Ground based spectroscopy has already been used to determine the masses of the main-sequence stars and the orbital periods, which span from 12 hours to 10s of days. All our targets have good

GALEX photometry and are photometrically stable, therefore we have been able to determine the best setup (acquisition and resolution) for each system.

Our observations are straight-forward. Target acquisition, depending on the target brightness, will be done with NUV imaging, or in dispersed light using the G130M grating. At present, the coordinates and proper motions are drawn from the PPMXL catalogue, which has proven to be reliable and accurate to fractions of an arcsec, hence we do not precede the observations with a search pattern. For our faintest object, LAMOST J1445+1236, we will use the lower resolution G140L grating, for all other targets we use the higher resolution G130M grating. We will make use of all 4 FP-POS positions.

One target, TYC 7218-934-1, is particularly interesting as it appears to be an eccentric binary. In order to confirm this we will observe the system twice in order to detect the Doppler shift of the white dwarf and confirm that it is definitely part of the binary (rather than being a wide member of a main-sequence binary). We separate the two observations by ~ 9 days ($2/3$ of an orbit) in order to ensure that the white dwarf will have a Doppler shift between the two observations.

Proposal 13704 - TYC-6996-449-1 STIS (01) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-6996-449-1 STIS (01), implementation										Fri Nov 14 02:08:46 GMT 2014
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(1)	TYC-6996-449-1	RA: 00 19 7.3870 (4.7807792d)		Proper Motion RA: 23.3 mas/yr		V=11.964+/-0.005		Reference Frame: ICRS		
		Alt Name1: RAVE-J0019-3712	Dec: -37 12 35.26 (-37.20979d)		Proper Motion Dec: 8.1 mas/yr		FUV=17.961, NUV=15.593				
Equinox: J2000											
Epoch of Position: 2000											
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(STIS.ta.646 383)	(1) TYC-6996-449-1	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			0.1 Secs (0.1 Secs)		
									[==>]		[1]
	2	(STIS.sp.64 6425)	(1) TYC-6996-449-1	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=10 00			2418 Secs (2418 Secs)		
Orbit Structure	Orbit 1 Server Version: 20140605 GS Acq Exp. 1 Pointing Maneuver Exp. 2 (Auto-WAVECAL) Exp. 2 Occultation Unused Orbital Visibility = 0 Exp. 2 (Auto-WAVECAL) Home										
	05001000150020002500300035004000450050005500 sec										

Proposal 13704 - TYC-9151-303-1 COS (02) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-9151-303-1 COS (02), implementation										Fri Nov 14 02:08:46 GMT 2014
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: COS/NUV, COS/FUV										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	TYC-9151-303-1	RA: 02 53 28.1560 (43.3673167d)		Proper Motion RA: 67.7 mas/yr		V=10.452+/-0.005		Reference Frame: ICRS		
		Alt Name1: RAVE-J0253-7352	Dec: -73 52 45.32 (-73.87926d) Equinox: J2000		Proper Motion Dec: 3.7 mas/yr Epoch of Position: 2000		FUV=16.809, NUV=15.118				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	Aquisition (COS.ta.620 704)	(2) TYC-9151-303-1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				6 Secs (6 Secs) [==>]		[1]
	2	Science 1 (COS.sp.620 747)	(2) TYC-9151-303-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 4; FP-POS=1			610 Secs (610 Secs) [==>]		[1]
	3	Science 2 (COS.sp.620 747)	(2) TYC-9151-303-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 4; FP-POS=2			610 Secs (610 Secs) [==>]		[1]
	4	Science 3 (COS.sp.620 747)	(2) TYC-9151-303-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 4; FP-POS=3			610 Secs (610 Secs) [==>]		[1]
	5	Science 4 (COS.sp.620 747)	(2) TYC-9151-303-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 4; FP-POS=4			610 Secs (610 Secs) [==>]		[1]
Orbit Structure	Orbit 1 Server Version: 20140605 Unused Orbital Visibility = 0 GS Acq Pointing Maneuver Exp. 1 Exp. 2 Exp. 3 Exp. 4 Exp. 5 Occultation Home										

Proposal 13704 - LAMOST-J1122+5236 COS (03) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, LAMOST-J1122+5236 COS (03), implementation										Fri Nov 14 02:08:46 GMT 2014									
	Diagnostic Status: No Diagnostics																			
	Scientific Instruments: COS/NUV, COS/FUV																			
	Special Requirements: (none)																			
Fixed Targets	#	Name		Target Coordinates				Targ. Coord. Corrections				Fluxes				Miscellaneous				
	(3)	LAMOST-J1122+5236		RA: 11 22 27.3630 (170.6140125d)				Proper Motion RA: 8.2 mas/yr				V=14.390+/-0.005				Reference Frame: ICRS				
		Alt Name1: 2MASS-J11222735+5236348		Dec: +52 36 34.87 (52.60969d) Equinox: J2000				Proper Motion Dec: -30.3 mas/yr Epoch of Position: 2000				FUV=16.268, NUV=16.699								
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.																				
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture			Spectral Els.		Opt. Params.		Special Reqs.		Groups		Exp. Time (Total)/[Actual Dur.]				Orbit	
	1	Aquisition (COS.ta.620 756)	(3) LAMOST-J1122 +5236	COS/NUV, ACQ/IMAGE, PSA			MIRRORB								26 Secs (26 Secs) [==>]				[1]	
	2	Science 1 (COS.sp.620 757)	(3) LAMOST-J1122 +5236	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=44 0; FP-POS=1						577 Secs (577 Secs) [==>]				[1]	
	3	Science 2 (COS.sp.620 757)	(3) LAMOST-J1122 +5236	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=44 0; FP-POS=2						577 Secs (577 Secs) [==>]				[1]	
	4	Science 3 (COS.sp.620 757)	(3) LAMOST-J1122 +5236	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=44 0; FP-POS=3						577 Secs (577 Secs) [==>]				[1]	
	5	Science 4 (COS.sp.620 757)	(3) LAMOST-J1122 +5236	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=44 0; FP-POS=4						578 Secs (578 Secs) [==>]				[1]	
Orbit Structure	Orbit 1 Server Version: 20140605 Unused Orbital Visibility = 0 GS Acq Pointing Maneuver Exp. 1 Exp. 2 Exp. 3 Exp. 4 Exp. 5 Occultation Home 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec																			

Proposal 13704 - TYC-7218-934-1 COS #1 (04) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-7218-934-1 COS #1 (04), implementation								Fri Nov 14 02:08:47 GMT 2014	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: COS/NUV, COS/FUV									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	TYC-7218-934-1	RA: 11 51 30.8520 (177.8785500d)	Proper Motion RA: -107.0 mas/yr	V=11.215+/-0.005	Reference Frame: ICRS				
		Alt Name1: RAVE-J1151-3104	Dec: -31 04 35.51 (-31.07653d)	Proper Motion Dec: 0.8 mas/yr	FUV=17.137, NUV=16.221					
Equinox: J2000									Epoch of Position: 2000	
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Aquisition (COS.ta.620 758)	(4) TYC-7218-934-1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				17 Secs (17 Secs)	
									[==>]	[1]
	2	Science 1 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 0;			543 Secs (543 Secs)	
						FP-POS=1			[==>]	[1]
	3	Science 2 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 0;			543 Secs (543 Secs)	
						FP-POS=2			[==>]	[1]
4	Science 3 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 0;			543 Secs (543 Secs)		
					FP-POS=3			[==>]	[1]	
5	Science 4 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 0;			546 Secs (546 Secs)		
					FP-POS=4			[==>]	[1]	
Orbit Structure	Orbit 1 Server Version: 20140605 Unused Orbital Visibility = 0 GS Acq Pointing Maneuver Occultation Home Exp. 1 Exp. 2 Exp. 3 Exp. 4 Exp. 5									

Proposal 13704 - TYC-7218-934-1 COS #2 (05) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-7218-934-1 COS #2 (05), implementation										Fri Nov 14 02:08:47 GMT 2014										
	Diagnostic Status: No Diagnostics																				
	Scientific Instruments: COS/NUV, COS/FUV																				
	Special Requirements: AFTER 04 BY 8.5 D TO 9.5 D																				
Fixed Targets	#	Name		Target Coordinates				Targ. Coord. Corrections				Fluxes				Miscellaneous					
	(4)	TYC-7218-934-1		RA: 11 51 30.8520 (177.8785500d)				Proper Motion RA: -107.0 mas/yr				V=11.215+/-0.005				Reference Frame: ICRS					
		Alt Name1: RAVE-J1151-3104		Dec: -31 04 35.51 (-31.07653d)				Proper Motion Dec: 0.8 mas/yr				FUV=17.137, NUV=16.221									
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.																					
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture			Spectral Els.		Opt. Params.		Special Reqs.		Groups		Exp. Time (Total)/[Actual Dur.]				Orbit		
	1	Aquisition (COS.ta.620 758)	(4) TYC-7218-934-1	COS/NUV, ACQ/IMAGE, PSA			MIRRORB								17 Secs (17 Secs)						
															[==>]				[1]		
	2	Science 1 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=43 0; FP-POS=1						543 Secs (543 Secs)						
															[==>]				[1]		
	3	Science 2 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=43 0; FP-POS=2						543 Secs (543 Secs)						
															[==>]				[1]		
4	Science 3 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=43 0; FP-POS=3						543 Secs (543 Secs)							
														[==>]				[1]			
5	Science 4 (COS.sp.620 760)	(4) TYC-7218-934-1	COS/FUV, TIME-TAG, PSA			G130M 1291 A		BUFFER-TIME=43 0; FP-POS=4						546 Secs (546 Secs)							
														[==>]				[1]			
Orbit Structure	Orbit 1 Server Version: 20140605 Unused Orbital Visibility = 0 GS Acq Pointing Maneuver Exp. 1 Exp. 2 Exp. 3 Exp. 4 Exp. 5 Home Occultation 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec																				

Proposal 13704 - LAMOST-J1445+1236 STIS (06) - Testing the single degenerate channel for supernova Ia

Proposal 13704, LAMOST-J1445+1236 STIS (06), implementation

Fri Nov 14 02:08:47 GMT 2014

Visit

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	LAMOST-J1445+1236	RA: 14 45 40.1560 (221.4173167d) Dec: +12 36 21.39 (12.60594d) Equinox: J2000	Proper Motion RA: 13.2 mas/yr Proper Motion Dec: -16.1 mas/yr Epoch of Position: 2000	V=13.577+/-0.005 FUV=18.626, NUV=16.886	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.646 435)	(5) LAMOST-J1445 +1236	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			1 Secs (1 Secs)	
								[==>]	[1]
2	(STIS.sp.64 6433)	(5) LAMOST-J1445 +1236	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=10 00			2362 Secs (2362 Secs)	
								[==>]	[1]

Orbit Structure

Orbit 1

Server Version: 20140605

GS Acq

Exp. 1

Pointing Maneuver

Exp. 2 (Auto-WAVECAL)

Exp. 2

Occultation

Unused Orbital Visibility = 0

Home

0

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

5500

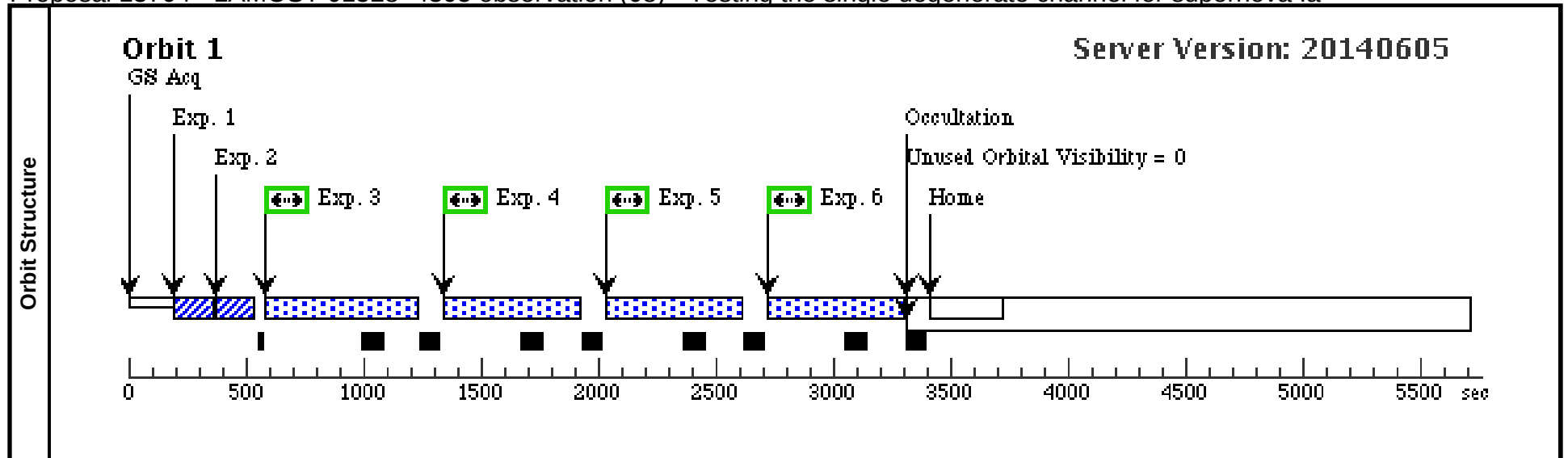
sec

Proposal 13704 - TYC-6760-497-1 STIS (07) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-6760-497-1 STIS (07), implementation										Fri Nov 14 02:08:47 GMT 2014
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
	(6)	TYC-6760-497-1	RA: 15 02 22.4960 (225.5937333d)	Proper Motion RA: -13.5 mas/yr	V=11.223+/-0.005	Reference Frame: ICRS					
		Alt Name1: RAVE-J1502-2941	Dec: -29 41 15.70 (-29.68769d) Equinox: J2000	Proper Motion Dec: -4.4 mas/yr Epoch of Position: 2000	FUV=17.754, NUV=15.419						
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(STIS.ta.646 426)	(6) TYC-6760-497-1	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			0.1 Secs (0.1 Secs)		
									[==>]	[1]	
	2	(STIS.sp.64 6428)	(6) TYC-6760-497-1	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=10 00			2381 Secs (2381 Secs)		
									[==>]	[1]	
Orbit Structure	Orbit 1 Server Version: 20140605 Exp. 1 Pointing Maneuver Exp. 2 (Auto-WAVECAL) Exp. 2 GS Acq Unused Orbital Visibility = 0 Occultation Exp. 2 (Auto-WAVECAL) Home </										

Proposal 13704 - LAMOST-J1528+4305 observation (08) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, LAMOST-J1528+4305 observation (08), completed									Fri Nov 14 02:08:47 GMT 2014
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: COS/FUV									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(7)	LAMOST-J1528+4305	RA: 15 28 46.0010 (232.1916708d) Dec: +43 05 30.03 (43.09168d) Equinox: J2000	Proper Motion RA: 2.2 mas/yr Proper Motion Dec: -6.7 mas/yr Epoch of Position: 2000		V=12.770+/-0.005 FUV=14.376, NUV=14.978		Reference Frame: ICRS		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Aquisition 1 (COS.sa.621 180)	(7) LAMOST-J1528 +4305	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				1 Secs (1 Secs) [==>]	[1]
	2	Aquisition 2 (COS.sa.621 180)	(7) LAMOST-J1528 +4305	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-W T-FLR; NUM-POS=5.0; STEP-SIZE=0.9			1 Secs (1 Secs) [==>]	[1]
	3	Science 1 (COS.sp.621 188)	(7) LAMOST-J1528 +4305	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=30 0; FP-POS=1			527 Secs (527 Secs) [==>]	[1]
	4	Science 2 (COS.sp.621 188)	(7) LAMOST-J1528 +4305	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=30 0; FP-POS=2			527 Secs (527 Secs) [==>]	[1]
	5	Science 3 (COS.sp.621 188)	(7) LAMOST-J1528 +4305	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=30 0; FP-POS=3			527 Secs (527 Secs) [==>]	[1]
	6	Science 4 (COS.sp.621 188)	(7) LAMOST-J1528 +4305	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=30 0; FP-POS=4			528 Secs (528 Secs) [==>]	[1]



Proposal 13704 - TYC-6917-654-1 observation (09) - Testing the single degenerate channel for supernova Ia

Visit	Proposal 13704, TYC-6917-654-1 observation (09), scheduled								Fri Nov 14 02:08:47 GMT 2014		
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: COS/FUV										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(8)	TYC-6917-654-1	RA: 20 13 9.5190 (303.2896625d)		Proper Motion RA: -34.1 mas/yr		V=10.836+/-0.005		Reference Frame: ICRS		
		Alt Name1: RAVE-J2013-2951	Dec: -29 51 30.15 (-29.85838d) Equinox: J2000		Proper Motion Dec: -11.9 mas/yr Epoch of Position: 2000		FUV=15.337, NUV=14.732				
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	Aquisition 1 (COS.sa.621 196)	(8) TYC-6917-654-1	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				1 Secs (1 Secs) [==>]		[1]
	2	Aquisition 2 (COS.sa.621 196)	(8) TYC-6917-654-1	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-W T-FLR; NUM-POS=5.0; STEP-SIZE=0.9			1 Secs (1 Secs) [==>]		[1]
	3	Science 1 (COS.sp.621 198)	(8) TYC-6917-654-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=25 0; FP-POS=1			494 Secs (494 Secs) [==>]		[1]
	4	Science 2 (COS.sp.621 198)	(8) TYC-6917-654-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=25 0; FP-POS=2			494 Secs (494 Secs) [==>]		[1]
	5	Science 3 (COS.sp.621 198)	(8) TYC-6917-654-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=25 0; FP-POS=3			494 Secs (494 Secs) [==>]		[1]
	6	Science 4 (COS.sp.621 198)	(8) TYC-6917-654-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=25 0; FP-POS=4			495 Secs (495 Secs) [==>]		[1]

