



15439 - Catching AGN in Deep Minimum States to Unveil Their Core Environment

Cycle: 25, 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	(2) MRK-335	COS/FUV COS/NUV	2	06-Jul-2018 21:00:17.0	yes

2 Total Orbits Used

ABSTRACT

The deep minimum state of AGNs is characterized by a strongly suppressed or even absent primary continuum. As the continuum disappears weak spectral features like relativistic iron lines or narrow soft X-ray emission lines from ionised plasmas become highly significant and their parameters can be determined. Therefore deep minimum states offer unique possibilities to investigate in detail the physics of the reprocessed components in AGN, including the immediate vicinity of the supermassive black hole. Applying our experience (several deep minimum observations) we propose 2 triggered 10ks XMM snapshot, one 80ks XMM follow-up simultaneous with one 80ks NuSTAR one 2-orbit HST observation of an AGN in deep

minimum state. We will identify deep minimum states mainly based on Swift and XMM-Newton slews.

OBSERVING DESCRIPTION

During the first orbit we need a 30s acquisition image (MIRRORB ACQ/Image PSA) and then a 1800s exposure with G130M centered at 1291A.

During the second orbit we need a 1800s exposure with G160M at 1623A

Proposal 15439 - Observation 1 (01) - Catching AGN in Deep Minimum States to Unveil Their Core Environment

Sat Jul 07 01:00:19 GMT 2018

Visit	Proposal 15439, Observation 1 (01), implementation Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%																																																											
Diagnostics	(Observation 1 (01)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details. (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE (Observation 1 (01)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE																																																											
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>MRK-335</td> <td>RA: 00 06 19.5372 (1.5814050d) Dec: +20 12 10.62 (20.20295d) Equinox: J2000</td> <td></td> <td>V=13.85</td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[QUASAR] Extended=NO</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	MRK-335	RA: 00 06 19.5372 (1.5814050d) Dec: +20 12 10.62 (20.20295d) Equinox: J2000		V=13.85	Reference Frame: SIMBAD																																						
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Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label (ETC Run)</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Acquisition i mage (1172525)</td> <td>(2) MRK-335</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORB</td> <td></td> <td></td> <td></td> <td>30 Secs (30 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>G130M/129 1 (1172527)</td> <td>(2) MRK-335</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>SEGMENT=BOTH; BUFFER-TIME=11 10; FP-POS=3</td> <td></td> <td></td> <td>2500 Secs (1045 Secs) [==>1045.0 Secs]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>G130M/129 1 (1172527)</td> <td>(2) MRK-335</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>SEGMENT=BOTH; BUFFER-TIME=11 10; FP-POS=4</td> <td></td> <td></td> <td>1250 Secs (1055 Secs) [==>1055.0 Secs]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(1172539)</td> <td>(2) MRK-335</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G160M 1623 A</td> <td>BUFFER-TIME=26 00; FP-POS=ALL; SEGMENT=BOTH</td> <td></td> <td></td> <td>675 Secs (2320 Secs) [==>580.0 Secs (Split 1)] [==>580.0 Secs (Split 2)] [==>580.0 Secs (Split 3)] [==>580.0 Secs (Split 4)]</td> <td>[2]</td> </tr> </tbody> </table>										#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	Acquisition i mage (1172525)	(2) MRK-335	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				30 Secs (30 Secs) [==>]	[1]	2	G130M/129 1 (1172527)	(2) MRK-335	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=11 10; FP-POS=3			2500 Secs (1045 Secs) [==>1045.0 Secs]	[1]	3	G130M/129 1 (1172527)	(2) MRK-335	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=11 10; FP-POS=4			1250 Secs (1055 Secs) [==>1055.0 Secs]	[1]	4	(1172539)	(2) MRK-335	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=26 00; FP-POS=ALL; SEGMENT=BOTH			675 Secs (2320 Secs) [==>580.0 Secs (Split 1)] [==>580.0 Secs (Split 2)] [==>580.0 Secs (Split 3)] [==>580.0 Secs (Split 4)]	[2]
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