



12952 - The extreme X-ray weakness of PG 0043+039

Cycle: 20, 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) PG0043+039	COS/FUV COS/NUV	1	16-Mar-2013 01:29:59.0	yes

1 Total Orbits Used

ABSTRACT

The majority of broad absorption line quasars are X-ray weak which is usually explained by the absorption of the out-flowing wind in combination with the winds velocity shear. PG 0043+039 is the most extreme X-ray weak quasar known to date, but shows surprisingly only a very weak broad absorption line system. A conclusive interpretation is hampered by the absence of simultaneous measurements which is mandatory as both, the X-ray flux and the broad absorption system are known to be variable. We propose simultaneous XMM-Newton, HST (1 orbit) and 10m Hobby-Eberly or SALT Telescope observations in order to characterize simultaneously PG 0043-036's X-ray emission and (broad) absorption (line system)

Proposal 12952 (STScI Edit Number: 1, Created: Friday, March 15, 2013 8:30:06 PM EST) - Overview properties.

OBSERVING DESCRIPTION

The UV spectrum of this quasar should be taken simultaneously with XMM observations. A UV spectrum of this variable quasar has been taken before with HST-FOS-G190H in 1991 (Turnshek et al., ApJ 476,40 (1997)).

The target coordinates are taken from "The large quasar reference frame (LQRF). An optical representation of the ICRS" Andrei, A. H., Souchay, J., Zacharias, N., et al., A&A 505,385 (2009).

Visit	Proposal 12952, Visit1 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: COS/NUV, COS/FUV Special Requirements: SCHED 100% <i>Comments: HST observations should be done simultaneously with XMM observations.</i>				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	PG0043+039	RA: 00 45 47.2291 (11.4467879d) Dec: +04 10 23.36 (4.17316d) Equinox: J2000	Redshift: 0.385120	V=15.9+/-0.5	Reference Frame: ICRS

Exposures	#	Label (ETC Run)	Target	Config, Mode, Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	Exp1 (COS.ta.439 870)	(1) PG0043+039	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				78.8 Secs [==>]	[1]
	2	Exp2 (COS.sp.413 679)	(1) PG0043+039	COS/FUV, TIME-TAG, PSA	G140L 1105 A	FLASH=YES; FP-POS=ALL; BUFFER-TIME=37 43			3600 Secs [==>388.0 Secs (Split 1)] [==>388.0 Secs (Split 2)] [==>388.0 Secs (Split 3)] [==>388.0 Secs (Split 4)]	[1]

