



# 15276 - The lens and host galaxy of the multiply-imaged gravitationally lensed SNIa iPTF16geu

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	(1) IPTF16GEU	WFC3/IR WFC3/UVIS	3	14-Aug-2017 14:03:44.0	yes

3 Total Orbits Used

## ABSTRACT

## Proposal 15276 (STScI Edit Number: 0, Created: Monday, August 14, 2017 1:03:46 PM EST) - Overview

We request HST observations of the host galaxy and the lens of the gravitationally lensed multiply-imaged Type Ia SN iPTF16geu. These observations are required to accomplish the science outlined in the successful DD proposal of this target in Cycle 24. Since the SN will have faded by over 6 magnitudes, the Cycle 25 images will serve as references, needed to accurately measure the fluxes of the SN images through the 7 HST bands used in Cycle 24. The combined data-set will yield a precise estimate of the lensing magnification, including corrections for extinction of the SN light by dust grains in the host galaxy and in the intervening lensing galaxy. Time-delay measurements between the host galaxy subtracted SN images will be used to measure the Hubble constant.

### **OBSERVING DESCRIPTION**

Observations of host and lensing galaxies of the strongly lensed Type Ia supernova iPTF16geu

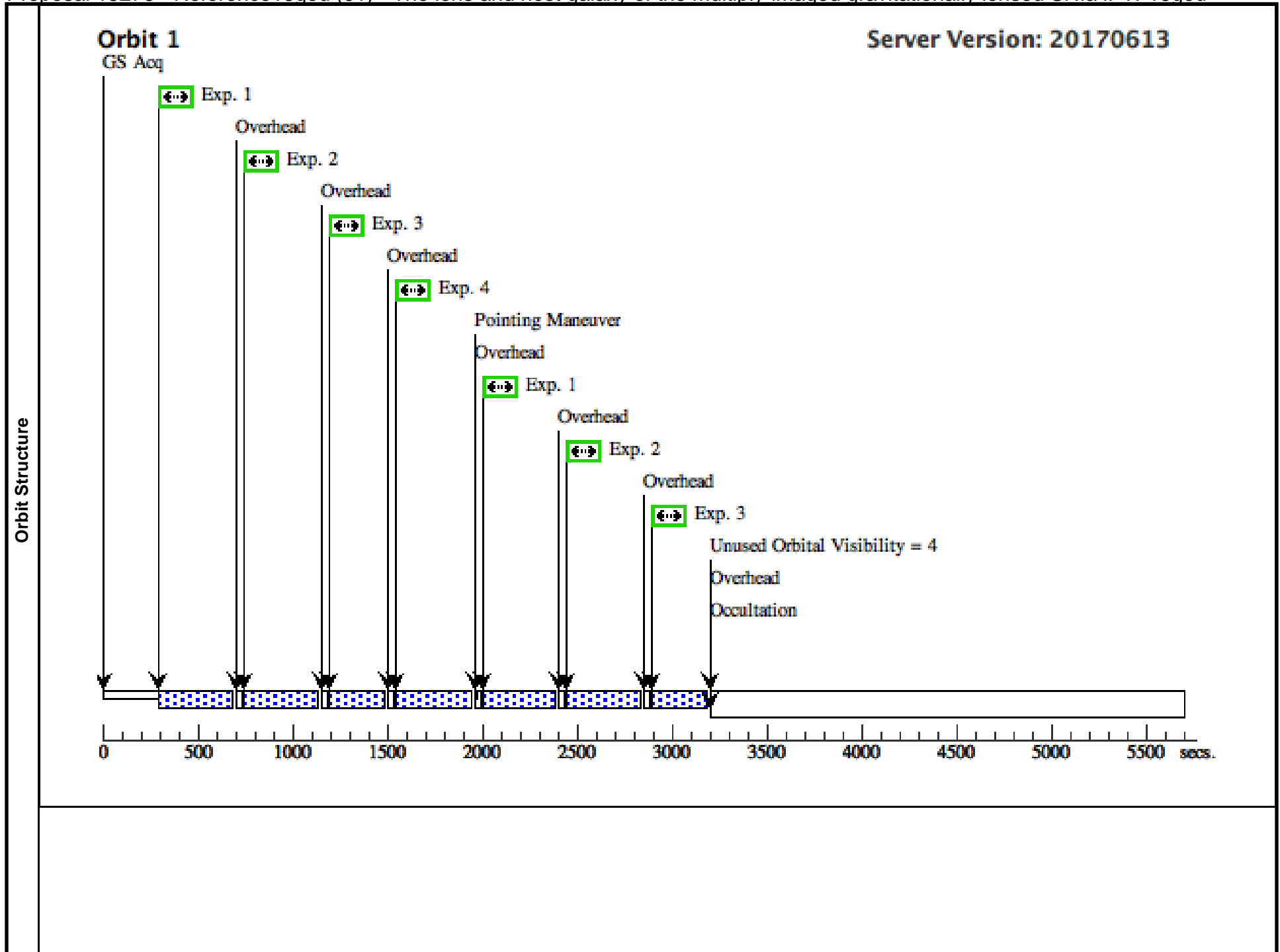
Proposal 15276 - Reference16geu (01) - The lens and host galaxy of the multiply-imaged gravitationally lensed SNIa iPTF16geu

Mon Aug 14 18:03:46 GMT 2017

<b>Visit</b>	<b>Proposal 15276, Reference16geu (01), implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: ORIENT 60D TO 100 D; ORIENT 50D TO 55 D <i>Comments: The orientation requirements were chosen to avoid the bright star, 30 SE of target for the IR exposures, as recommended by WFC3 IR scientist in C24, Elena Sabbi.</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(5-7)	
(3)		Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1-4)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(1)	IPTF16GEU	RA: 21 04 15.8633 (316.0660971d) Dec: -06 20 24.50 (-6.34014d) Equinox: J2000		V=20.5+/-0.5	Reference Frame: ICRS

Proposal 15276 - Reference16geu (01) - The lens and host galaxy of the multiply-imaged gravitationally lensed SNIa IPTF16geu

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F390W	(1) IPTF16GEU	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F390W	FLASH=11		Pattern 3, Exps 1-4 in Reference16geu (01) (3)	360 Secs (1454 Secs) [==>363.0 Secs (Pattern 1)] [==>363.0 Secs (Pattern 2)] [==>364.0 Secs (Pattern 3)] [==>364.0 Secs (Pattern 4)]	[1] [2]
	2	F475W	(1) IPTF16GEU	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F475W	FLASH=5		Pattern 3, Exps 1-4 in Reference16geu (01) (3)	370 Secs (1494 Secs) [==>373.0 Secs (Pattern 1)] [==>373.0 Secs (Pattern 2)] [==>374.0 Secs (Pattern 3)] [==>374.0 Secs (Pattern 4)]	[1] [2]
	3	F814W	(1) IPTF16GEU	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F814W	FLASH=5		Pattern 3, Exps 1-4 in Reference16geu (01) (3)	270 Secs (1227 Secs) [==>273.0 Secs (Pattern 1)] [==>273.0 Secs (Pattern 2)] [==>274.0 Secs (Pattern 3)] [==>407.0 Secs (Pattern 4)]	[1] [2] [3]
	4	F625W	(1) IPTF16GEU	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=1		Pattern 3, Exps 1-4 in Reference16geu (01) (3)	375 Secs (1648 Secs) [==>378.0 Secs (Pattern 1)] [==>379.0 Secs (Pattern 2)] [==>379.0 Secs (Pattern 3)] [==>512.0 Secs (Pattern 4)]	[1] [2] [3]
	5	F110W	(1) IPTF16GEU	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=SPAR S5	POS TARG null,-20	Pattern 1, Exps 5-7 in Reference16geu (01) (1)	41.754125 Secs (125.262 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[3]
	6	F105W	(1) IPTF16GEU	WFC3/IR, MULTIACCUM, IRSUB512	F105W	NSAMP=8; SAMP-SEQ=SPAR S25	POS TARG null,-20	Pattern 1, Exps 5-7 in Reference16geu (01) (1)	161.301784 Secs (483.905 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[3]
	7	F160W	(1) IPTF16GEU	WFC3/IR, MULTIACCUM, IRSUB512	F160W	NSAMP=15; SAMP-SEQ=SPAR S25	POS TARG null,-20	Pattern 1, Exps 5-7 in Reference16geu (01) (1)	321.750541 Secs (965.252 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[3]



### Orbit 2

Server Version: 20170613

