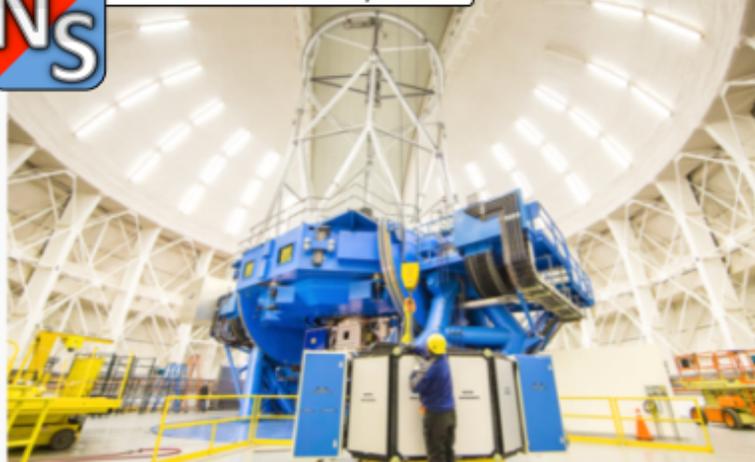


Facility
Instrument

GMOS



Covers the whole sky!



www.gemini.edu/gmos

Gemini Multi-Object Spectrograph (North & South):

- * imaging over a 5.5'x5.5' field of view*
- * spectroscopy 0.35-1.03 μm , $R \sim 600-4400$
in long- or multi-slit (MOS) mode*
- * can be used with an Integral Field Unit (IFU)*



Imaging & Spectroscopy

For imaging or spectroscopic programs

AO mode Unavailable

Cannot be played with an AO system card

www.gemini.edu



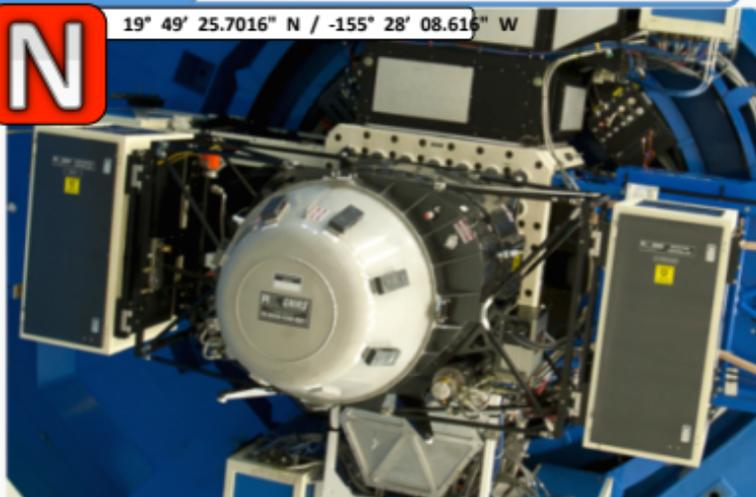
 2020P

Facility
Instrument

GNIRS



19° 49' 25.7016" N / -155° 28' 08.616" W



www.gemini.edu/gnirs

Gemini Near Infra-Red Spectrograph (North):

- * long-slit spectroscopy R~1700, 5900, 18000 in J, H, K, L or M band (0.8-5.4 μm).*
- * cross-dispersed w/ J, H and K simultaneously at R~1700 (partial coverage at higher res.).*



Spectroscopy

For spectroscopic programs only

AO mode Available

Can be played with an AO system card

www.gemini.edu



G 2020P

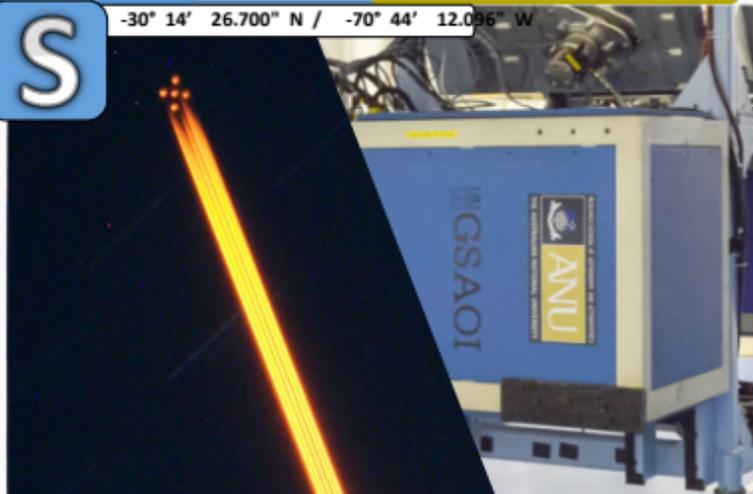
Facility
Instrument

GSAOI + GeMS



S

-30° 14' 26.700" N / -70° 44' 12.096" W



/gems

/gsaoi

Gemini South Adaptive Optics Imager (South):

- * diffraction limited images in 0.9 – 2.5 μm
- * 85" \times 85" field-of-view (0.02"/pixel)
- * 22 narrow and broad-band filters
- * highly uniform PSF across the field-of-view!



Imaging

For imaging programs only

AO mode Enabled

Does not require an AO system card.

www.gemini.edu



G 2020P

Facility
Instrument

NIFS



19° 49' 25.7016" N / -155° 28' 08.616" W



www.gemini.edu/nifs

Near-infrared Integral Field Spectrograph (North):

- * IFU spectroscopy 0.95-2.40 μm , $R \sim 5000$*
- * field of view of 3.0" \times 3.0"*
- * spatial resolution of 0.1" with AO*
- * can be used with a coronagraph*



Spectroscopy (IFU mode)

For spectroscopic programs only

AO mode Available

Can be played with an AO system card

www.gemini.edu



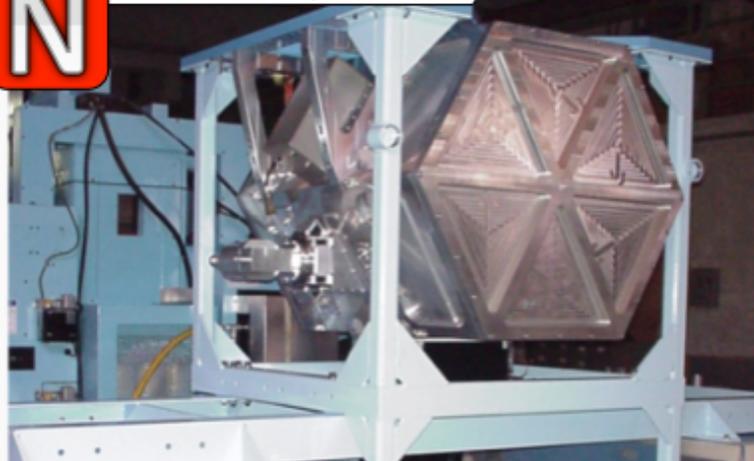
G 2020P

Facility
Instrument

NIRI



19° 49' 25.7016" N / -155° 28' 08.616" W



www.gemini.edu/niri

Near Infra-Red Imager (North):

** imaging 1-5 μm*

Pix scale ("/pix)=	0.022	0.050	0.117
FOV (arcsec sq)=	22	51	120

** 8 broad-band, 21 narrow-band filters*



Imaging

For imaging programs only

AO mode Available

Can be played with an AO system card

www.gemini.edu



G 2020P

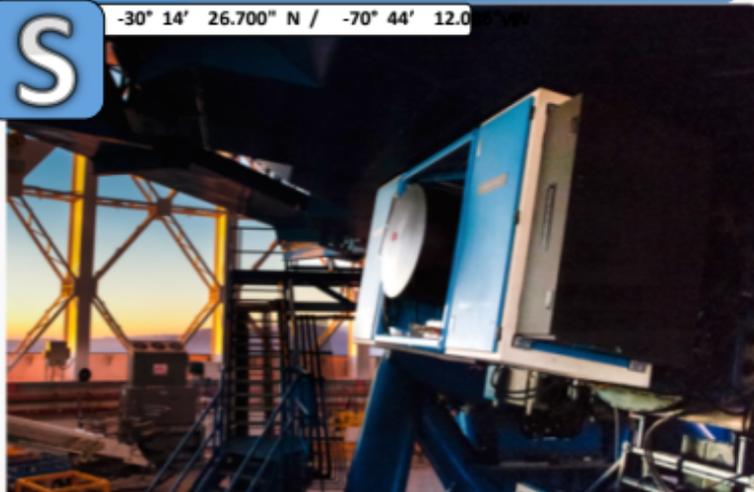
Facility
Instrument

F2



S

-30° 14' 26.700" N / -70° 44' 12.0"



www.gemini.edu/f2

Flamingos-2 (South):

- * imaging over a 6.1' diameter field of view*
- * spectroscopy 1.0-2.4 μm , R~250-3000*
- * designed for multi-slit (MOS) spectroscopy*



Imaging & Spectroscopy

For imaging or spectroscopic programs

AO mode Unavailable

Cannot be played with an AO system card

www.gemini.edu



G 2020P

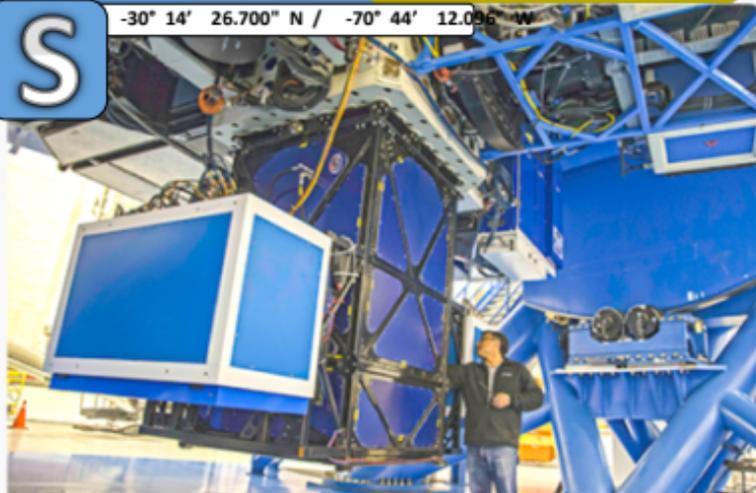
Facility
Instrument

GPI



S

-30° 14' 26.700" N / -70° 44' 12.096" W



www.gemini.edu/gpi

Gemini Planet Imager (South):

- * extreme AO imaging, 0.9-2.4 μm
- * polarimeter/IFU spectrometer ($R \sim 40$ in H)
- * contrast of 10^{-6} at separations of 0.2-1"
- * bright natural guide star ($I < 9\text{mag}$)



Imaging & Spectroscopy

For imaging or spectroscopic programs

AO mode Enabled

Does not require an AO system card.

www.gemini.edu



G 2020P

AO
System

Altair



19° 49' 25.7016" N / -155° 28' 08.616" W



www.gemini.edu/altair

Altair (North):

- * *Diffraction limited imaging using NGS mode*
- * *Laser guide star (LGS) for fainter targets*
- * *Super-seeing (~0.25") using LGS+P1 mode*

*Cannot be moved between programs.
Discard to bottom of the instrument
deck after the program is complete.*

Gemini North AO system

Enables a Gemini North instrument's AO mode.

www.gemini.edu



G 2020P