

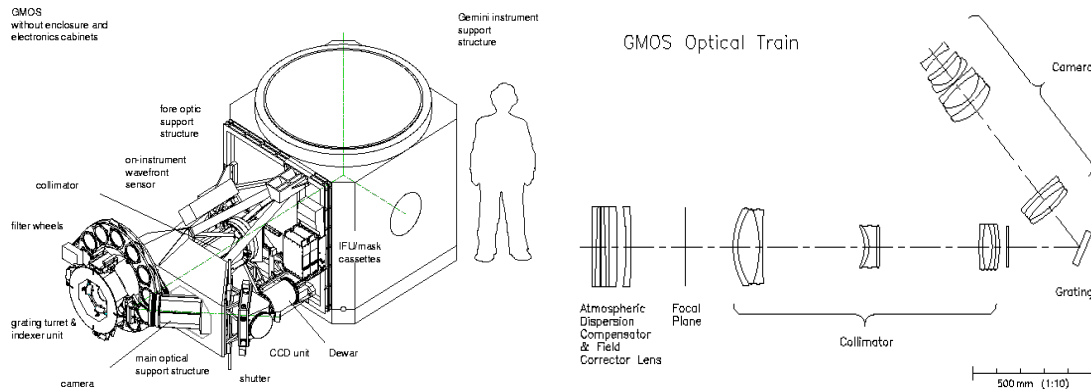
## GMOS-S

### Description

GMOS-S is a multifunction spectrograph and imager, covering a spectral range of 0.36–1.03  $\mu\text{m}$ , with a sampling of 0.080"/pixel. It is almost identical to GMOS-N.

Core operating modes (4):

- 5.5' square field of view, broad and narrow band imaging.
- 5.5' long slits,
  - Resolution 1260–8800 for 0.25" slit (depending on the used grating).
  - Resolution 210–1460 for 1.5" slit (depending on the used grating).
- 5.5x5.5 arcmin Multi-Object Spectroscopy.
- Integral Field Unit (IFU), fiber fed, 0.2" sampling.
  - IFU-2, 7" x 5", 1000 spaxels.
  - IFU-R, 3.5" x 5", 500 spaxels.



### Components

On-instrument Wavefront Sensor (OIWFS)

- Visual detector EEV CCD-39, 80x80, 24  $\mu\text{m}$  pixels.
- 2x2 lenslet, Shack-Hartmann mask for tip-tilt guiding and telescope astigmatism corrections, limiting magnitude  $r \sim 15$ .

Focal Plane Mask Cassette exchanger (up to 18 installed masks plus the IFU unit):

- 7 Long slits, 330" length: 0.25", 0.5", 0.75", 1", 1.5", 2", 5" widths.
- 5 Nod & Shuffle slits, 108" length: 0.5", 0.75", 1", 1.5", 2" widths.
- IFU cassette, either IFU-R or IFU-2.
- Up to 18 exchangeable custom masks, typically 30–60 slitlets each.
- For imaging mode the mechanism is retracted.

Collimator, multi-element, refractive, with oil interfaces. Collimated beam size: 98 mm.

