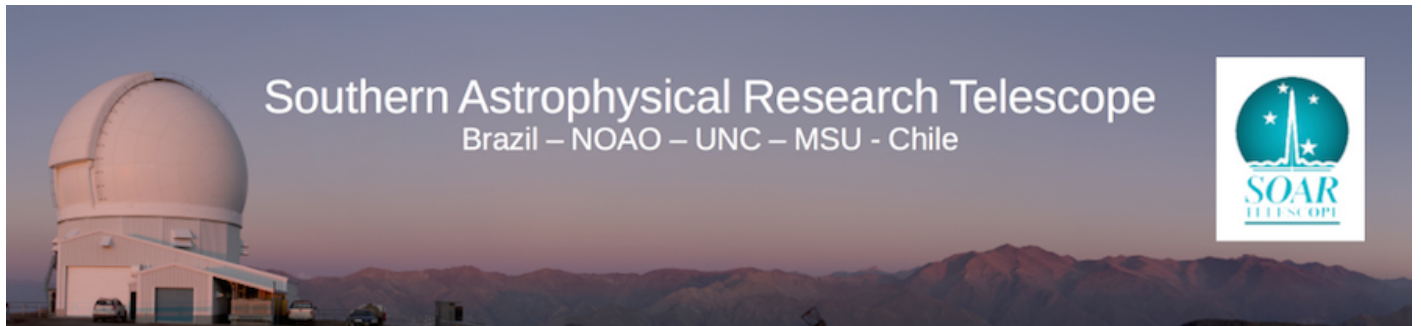




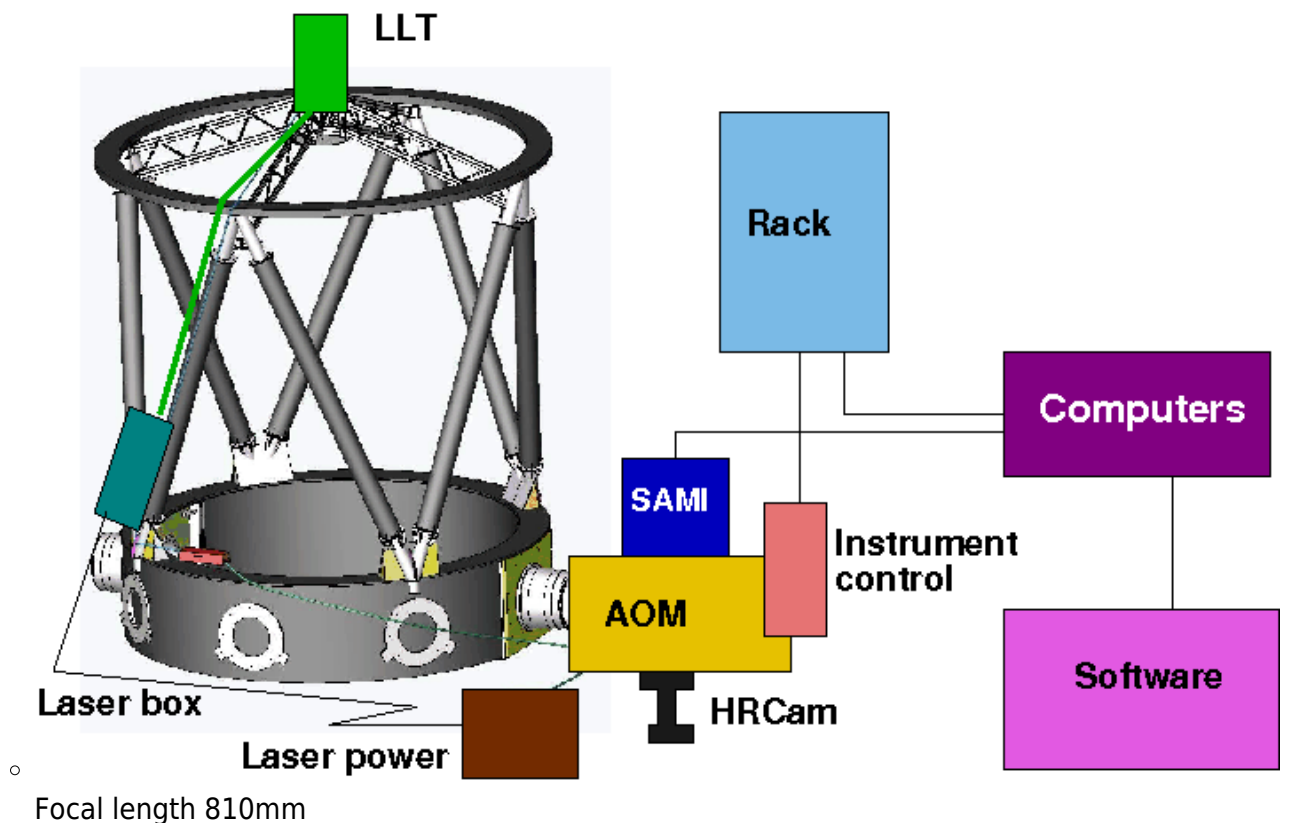
Published on SOAR (<http://www.ctio.noirlab.edu/soar>)

[Home](#) > [SOAR Adaptive Optics Module \(SAM\)](#) > [About SAM](#) > SAM in Numbers

SAM in Numbers

AOM: optics

- Focus depth w.r.t. flange surface: 150mm
- OAP parameters:

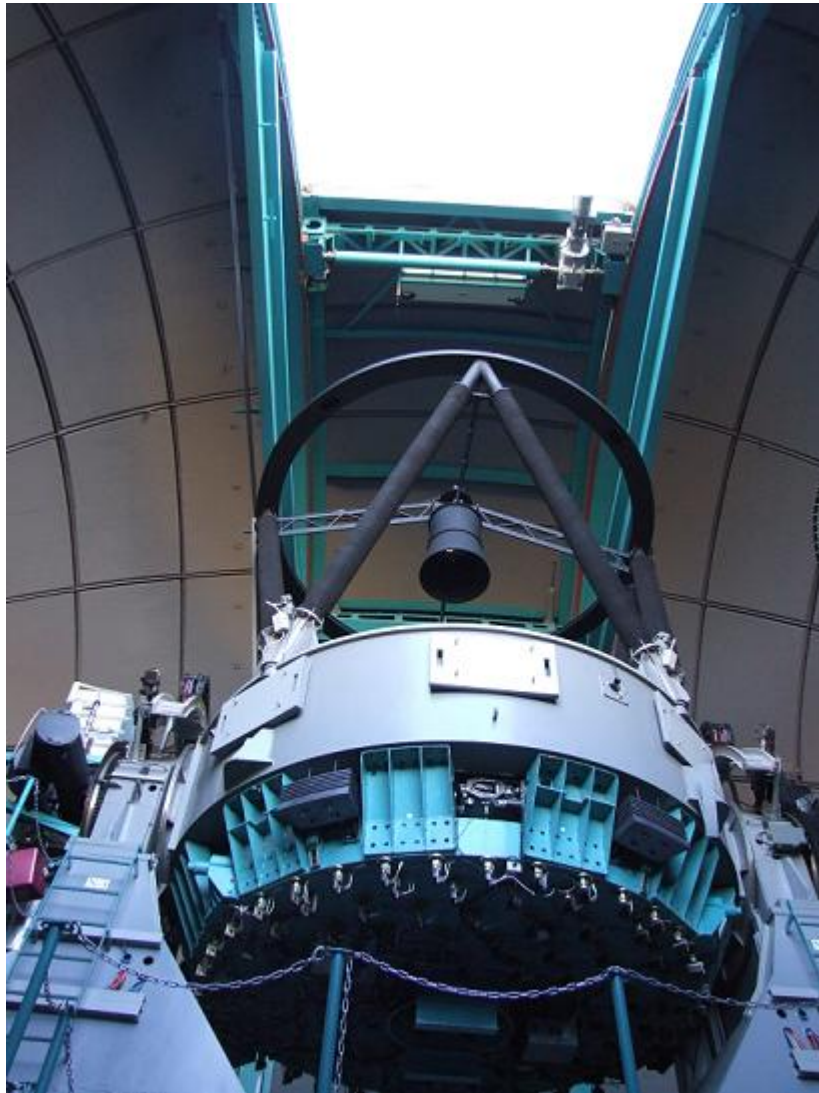


- Off-axis distance 213.277mm
- Diameter 175mm
- Deformable mirror BIM-60
 - Number of electrodes: 60
 - Pupil diameter: 50mm, incidence angle: 12.5deg
 - Min. curvature radius (400V on all electrodes): 16.7m
- Tip-Tilt guiders
 - Patrol field: 100x100mm (5x5 arcmin)
 - Probe field of view: 3x3arcsec

AOM - mass and dimensions

- Total mass at installation (3-Aug-2009) ~300kg
- Offset towards SOAR w.r.t. the ISB hole: 67.5m

SOAR telescope



- Aperture diameter 4.10m
- Plate scale 0.330mm/arcsec or 3.025arcsec/mm
- M1 curvature radius at vertex: -13.50970m
- M1 conic constant: -1.002667
- M2 curvature radius: -2.03265m
- M1-M2 distance: 5.83922m
- M2-M3 distance: 4.98922m

- M3 to focus: 4250.0m
- Effective focal length: 68.175m (F/16.63)
- Focal surface radius: 0.9656m (convex outside)
- Central obscuration: 0.228 (diameter 936.5mm)

Laser

- Wavelength 355nm
- Nominal power 10W
- Nominal pulse frequency 10kHz, pulse length 34ns
- Laser head size: 813x127x86mm, mass: 14.5kg
- Typical power consumption: 400W laser, 700W chiller
- Power supply size: 427x364x76mm, mass: 8.4kg
- Chiller size: 533x440x264mm, mass 55kg

Electronics

Computers

HR camera

- Pixel size 10 micron or 15.23mas
- Format 658(H)x496(V) or 6.58x4.96mm or 10.0x7.55arcsec

SAMI

- Pixel size 15micron or 45.5mas
- 4Kx4K (3x3 arcmin on the sky)
- Filters: TBD

[Back to SAM webpage](#) ^[1]

Last change: Dec-23-2014, César Briceño

Send comments to: [Andrei Tokovinin](#) ^[2]

Source URL: <http://www.ctio.noirlab.edu/soar/content/sam-numbers>

Links

[1] <http://www.ctio.noirlab.edu/soar/content/soar-adaptive-optics-module-sam>

[2] <mailto:atokovinin@ctio.noao.edu>