



The SNAP Telescope

Michael Lampton for the SNAP Collaboration

Three-mirror anastigmats

- Wide flat field
- All reflector
- no refractive corrector
- Easily folded
- Convenient focal surface
- 9 d.o.f - 6 constraints
- highly elastic design

SNAP Requirements

- Aperture: 2 meters
- Field: 1 sq degree
- Cover 0.4 to 1.7 μm
- Diffraction limited $>1\mu\text{m}$
- Flat focal surface
- Stray light \ll Zodi
- Must fit launch shroud
- Must survive launch

Design Features

- Lightweight Primary mirror
- All-CFRP structure
- Tripod secondary structure
- Transverse tertiary axis
- All mirrors 290K
- Metering structure 290K

Transverse Rear Axis

- Located behind primary
- Shortest possible layout
- Encloses fold mirror & tertiary
- Dark isothermal enclosure
- Rigid metering structure
- Side Gigacam location
- passive detector cooling

PERFORMANCE

- 1.
- 2.
- 3.
- 4.