



UNIVERSITY OF
CAMBRIDGE
Cavendish Laboratory



MROI – what's happening

David Buscher

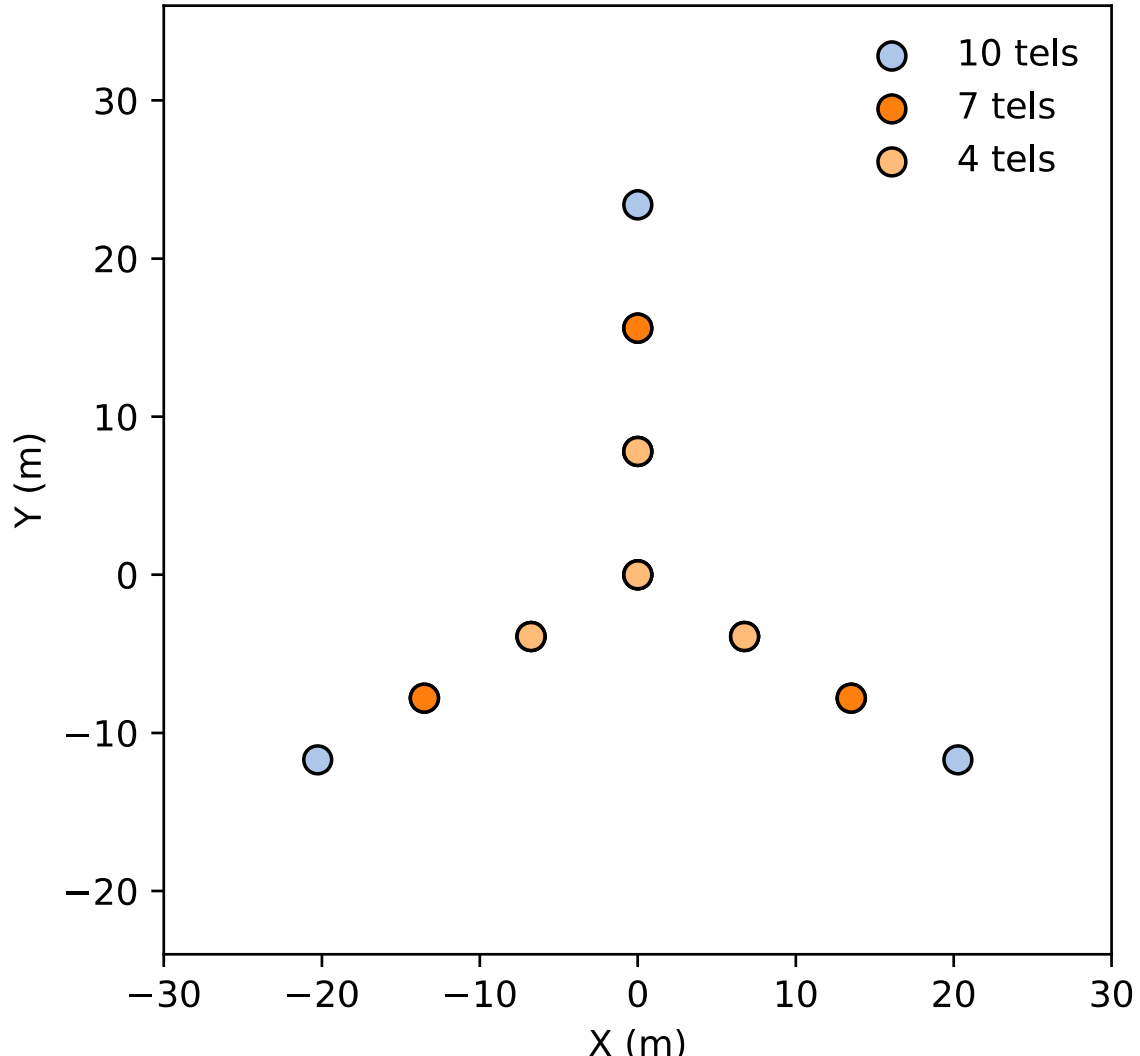
Cavendish Laboratory, Cambridge

The Magdalena Ridge Observatory Interferometer

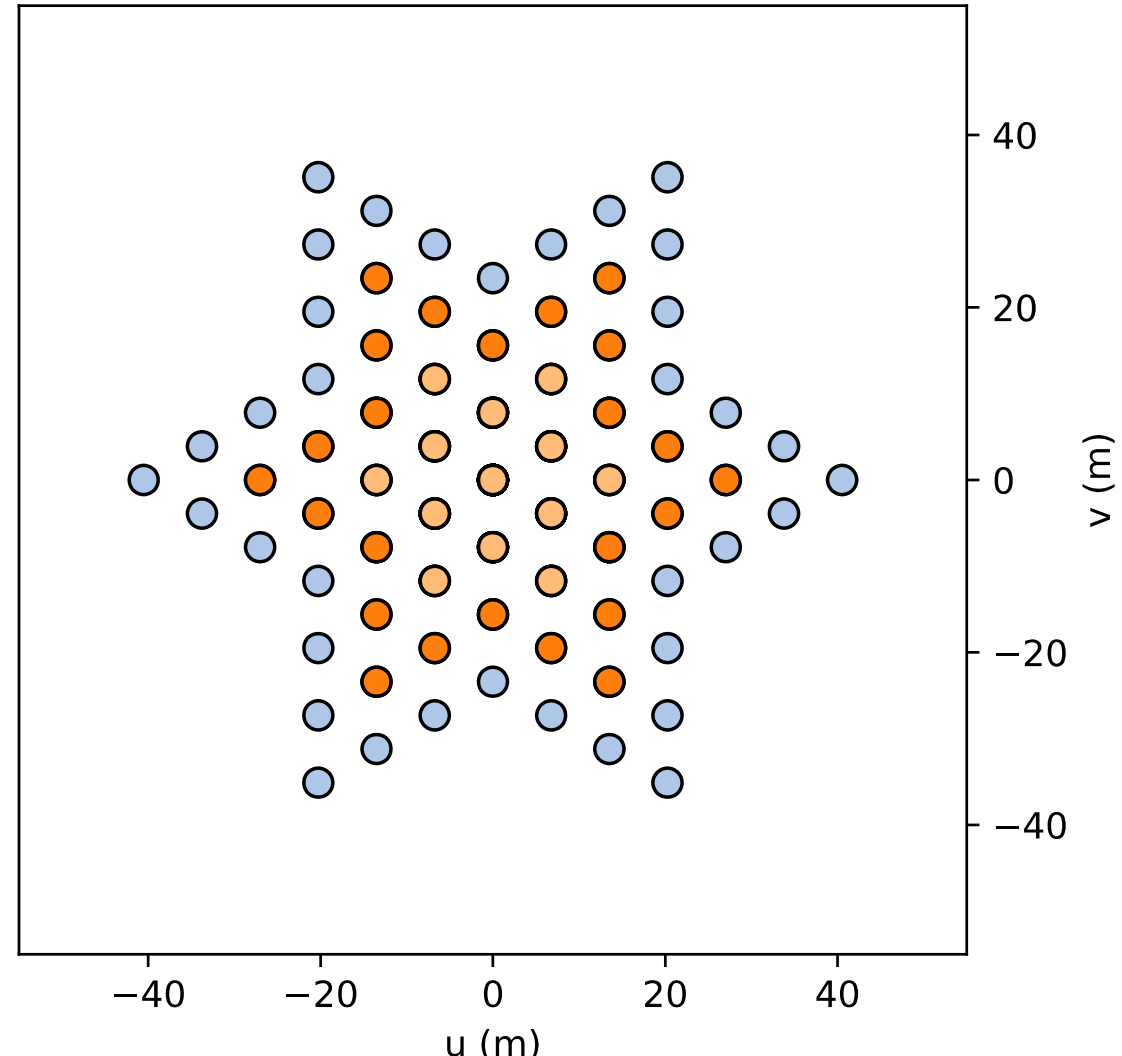


The MROI vision: imaging

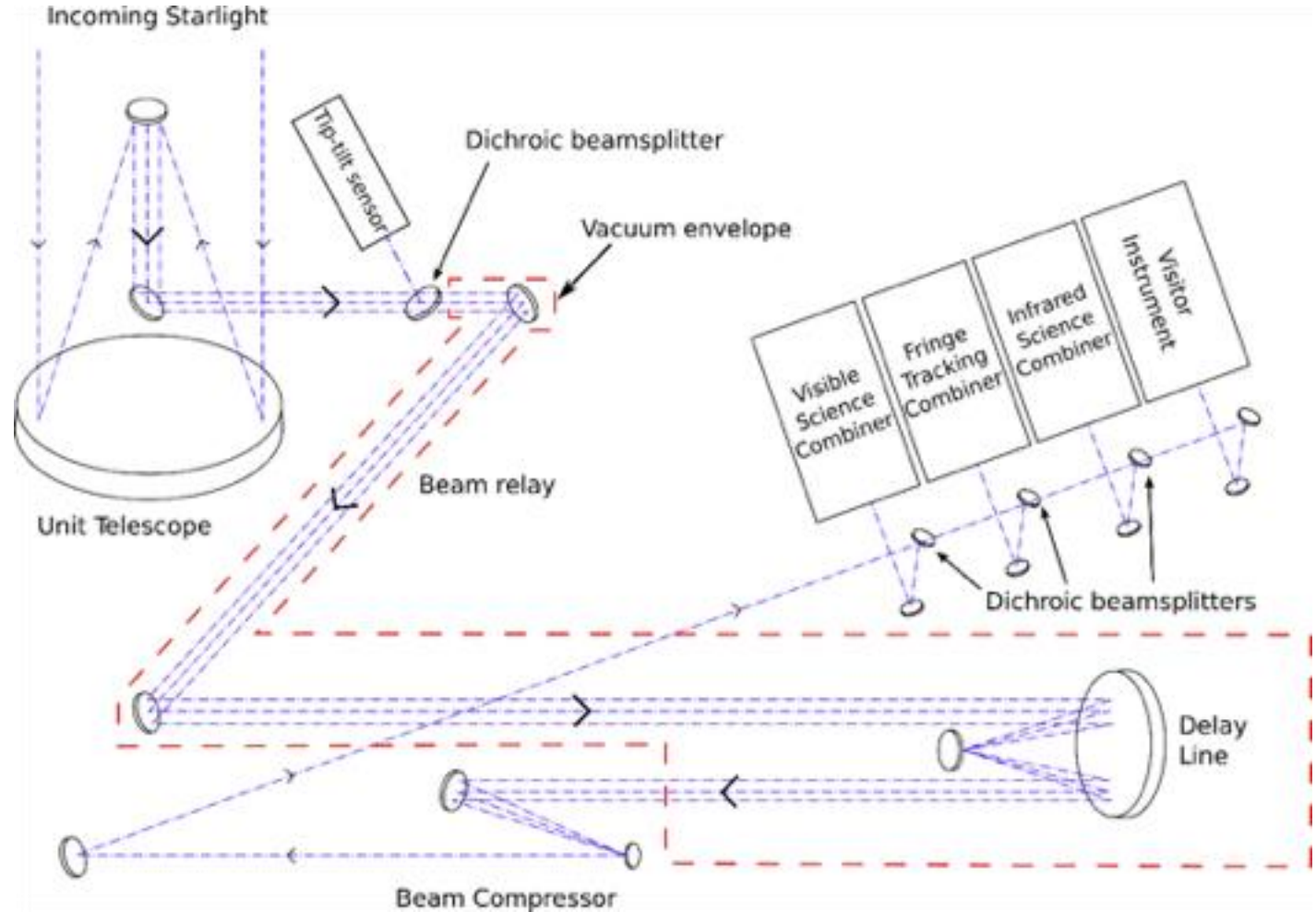
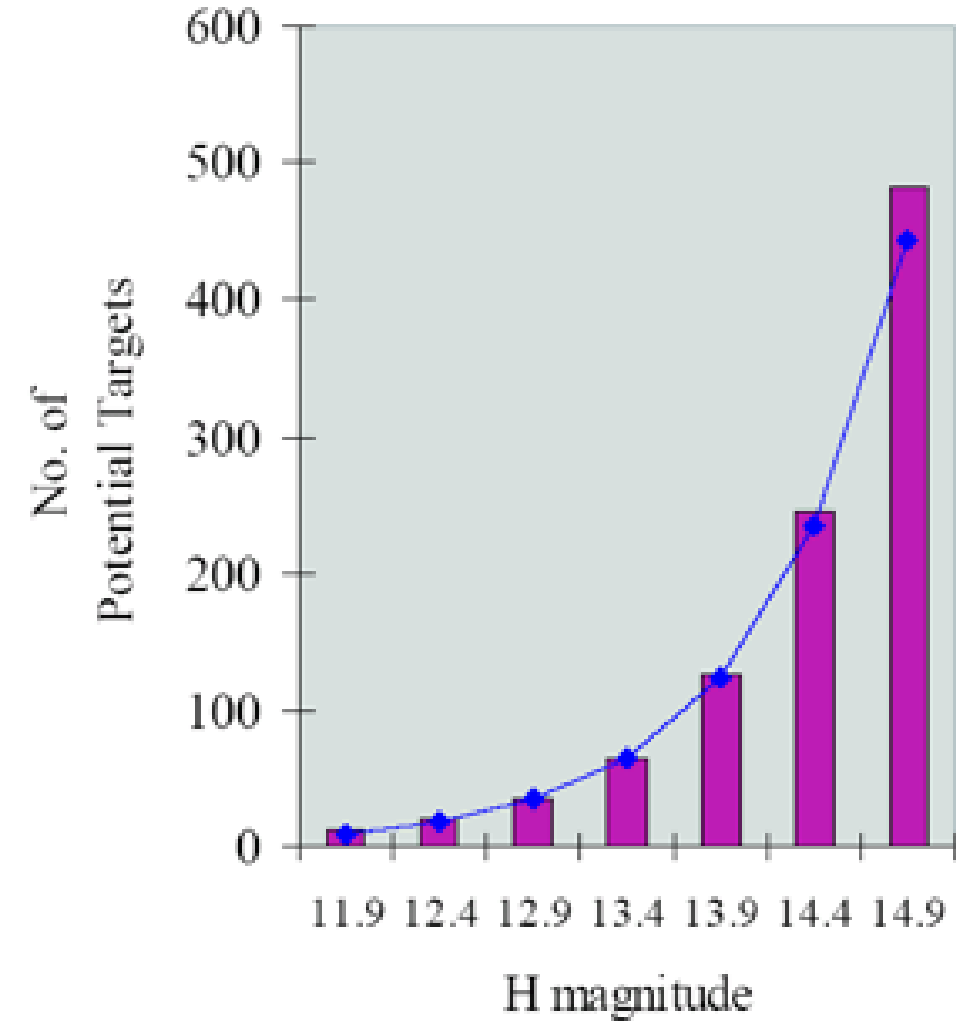
Telescope coordinates



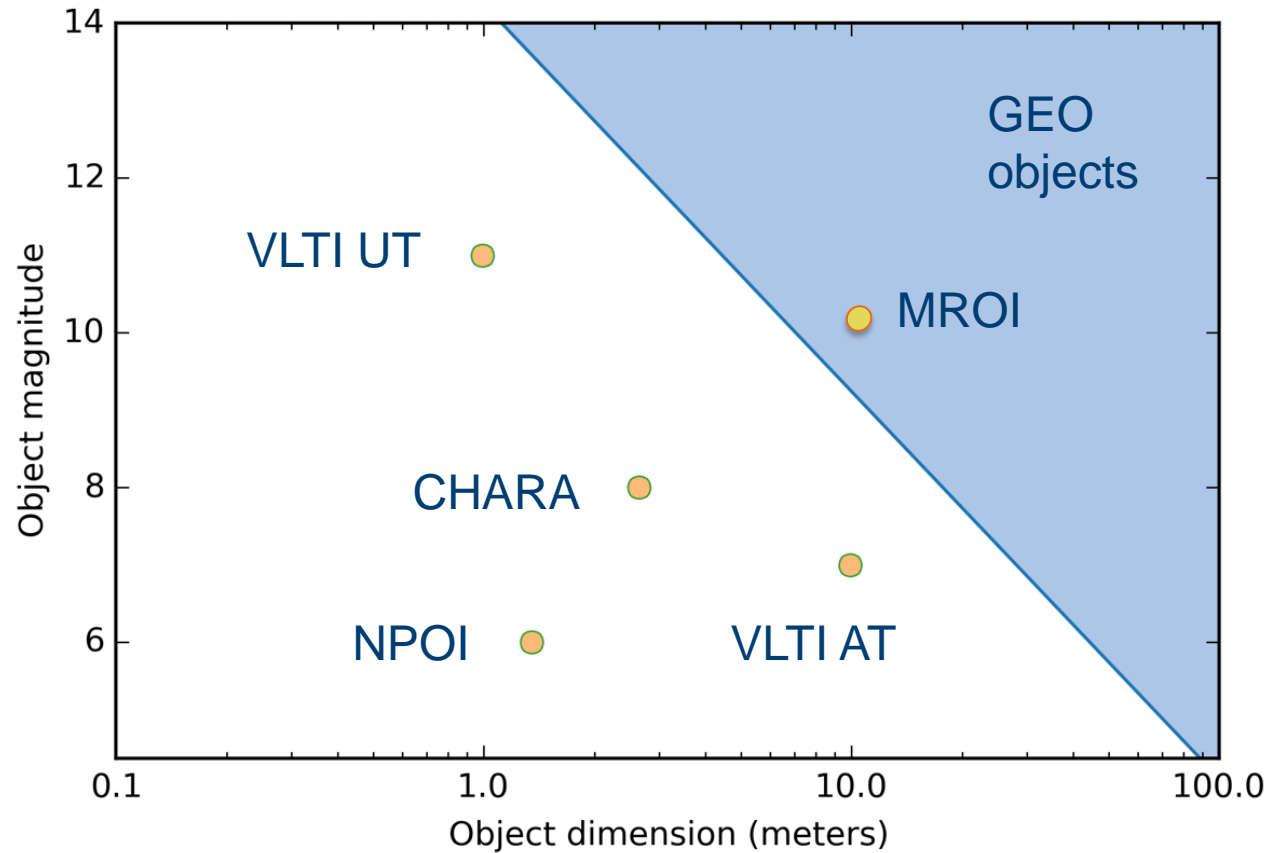
Baseline coordinates



The MROI vision: sensitivity



These characteristics are also key for diversifying the funding stream for MROI



The first fast-tip-tilt system is undergoing tests on the first unit telescope



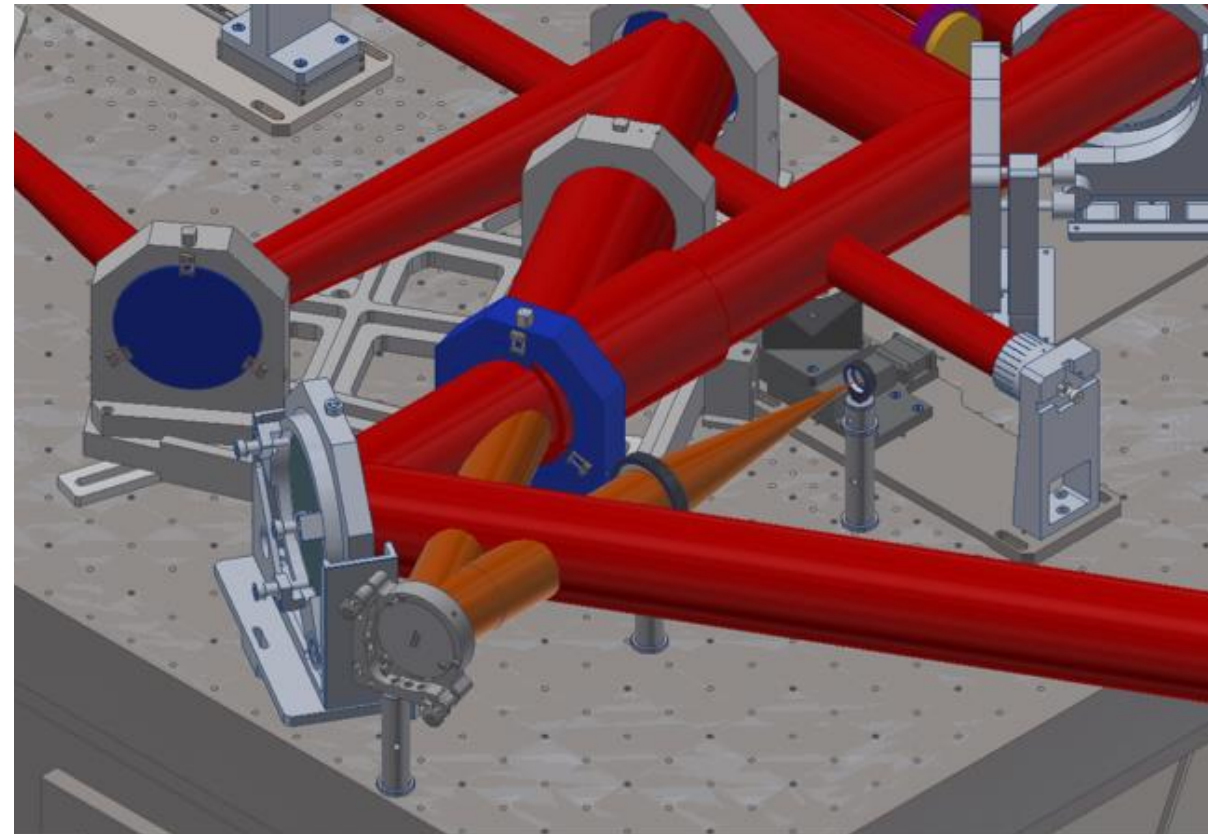
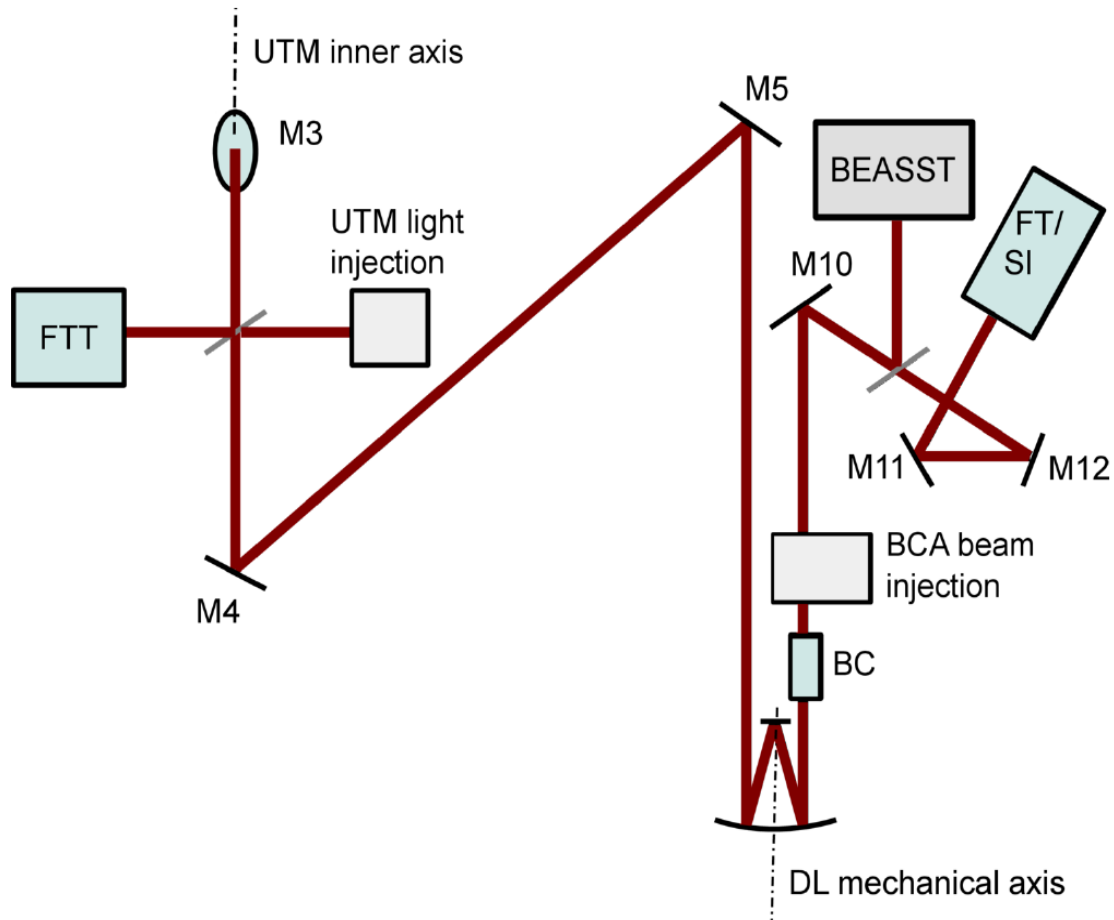
The first enclosure is being shipped



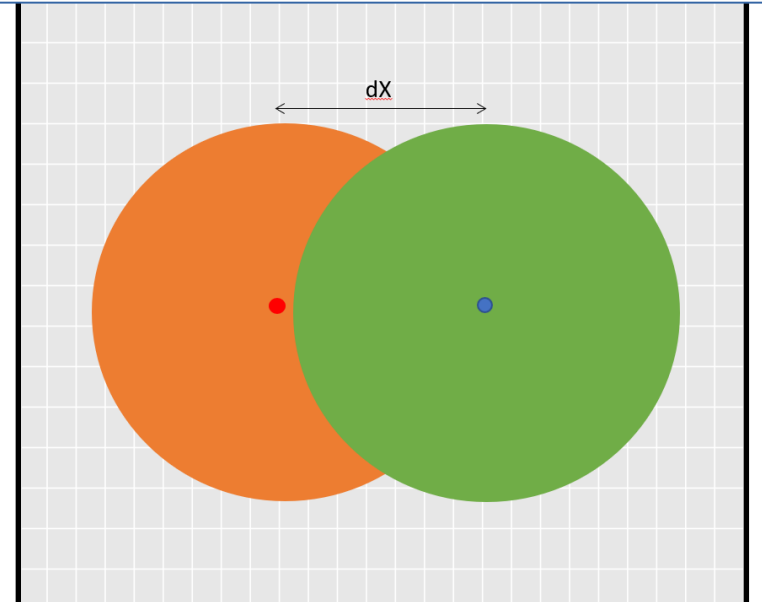
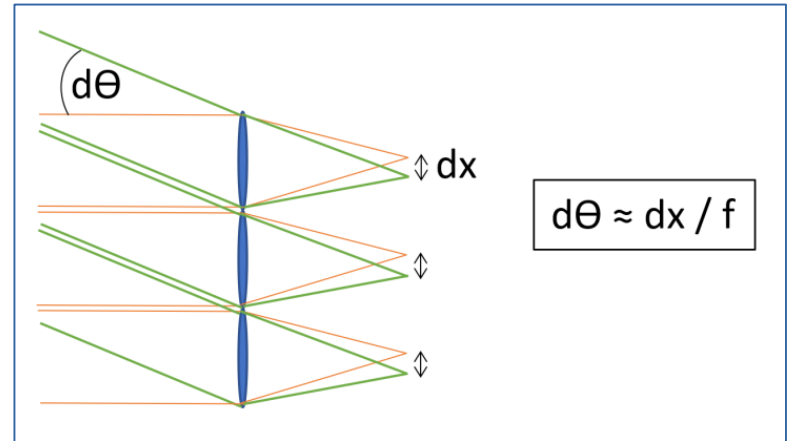
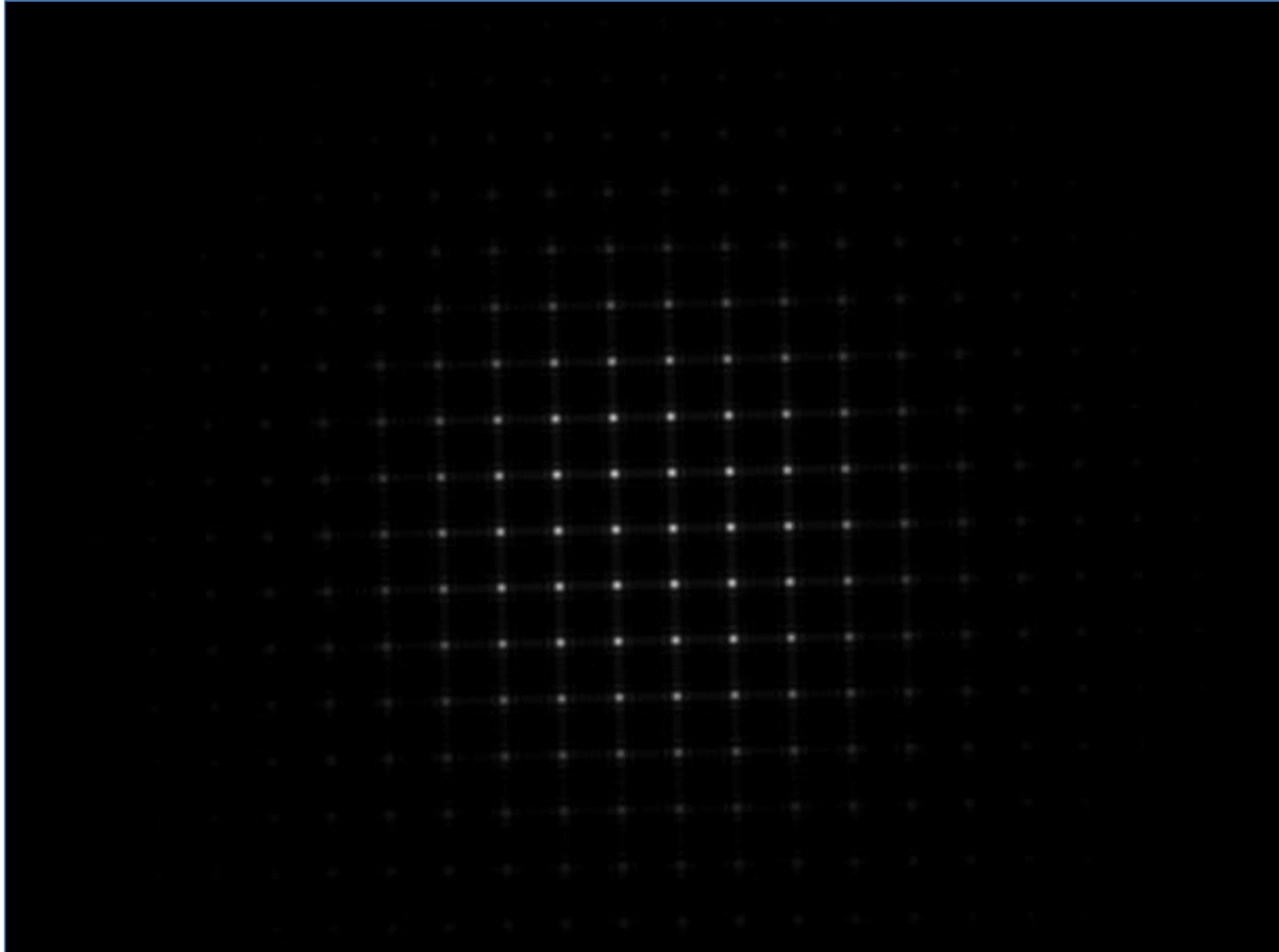
The infrastructure for the inner telescope pads is being installed



The automated alignment system will allow rapid realignment of system drifts



We have prototyped the tilt and shear sensor to show it will meet the requirements



The critical goals for this year are the first Performance Verification Milestones

- PVMs define the context within which the system performance is checked at increasing levels of system integration.
- PVM1: first starlight on UT tip-tilt sensor
 - Integration of UT and enclosure
- PVM2: closed-loop operation of FTT system
 - Hardware/software integration of FTT with UT
- PVM3: first light on Fringe Tracker table
 - Test beam quality, stability and throughput
 - Validates performance of BRS, DL, BCR, vacuum system and AAS

We have not lost sight of our original vision

- We are not where we thought we would be by now
- We are making good progress despite a constrained funding environment
- We are still aiming to deliver a quantum leap in the science capabilities of interferometry