

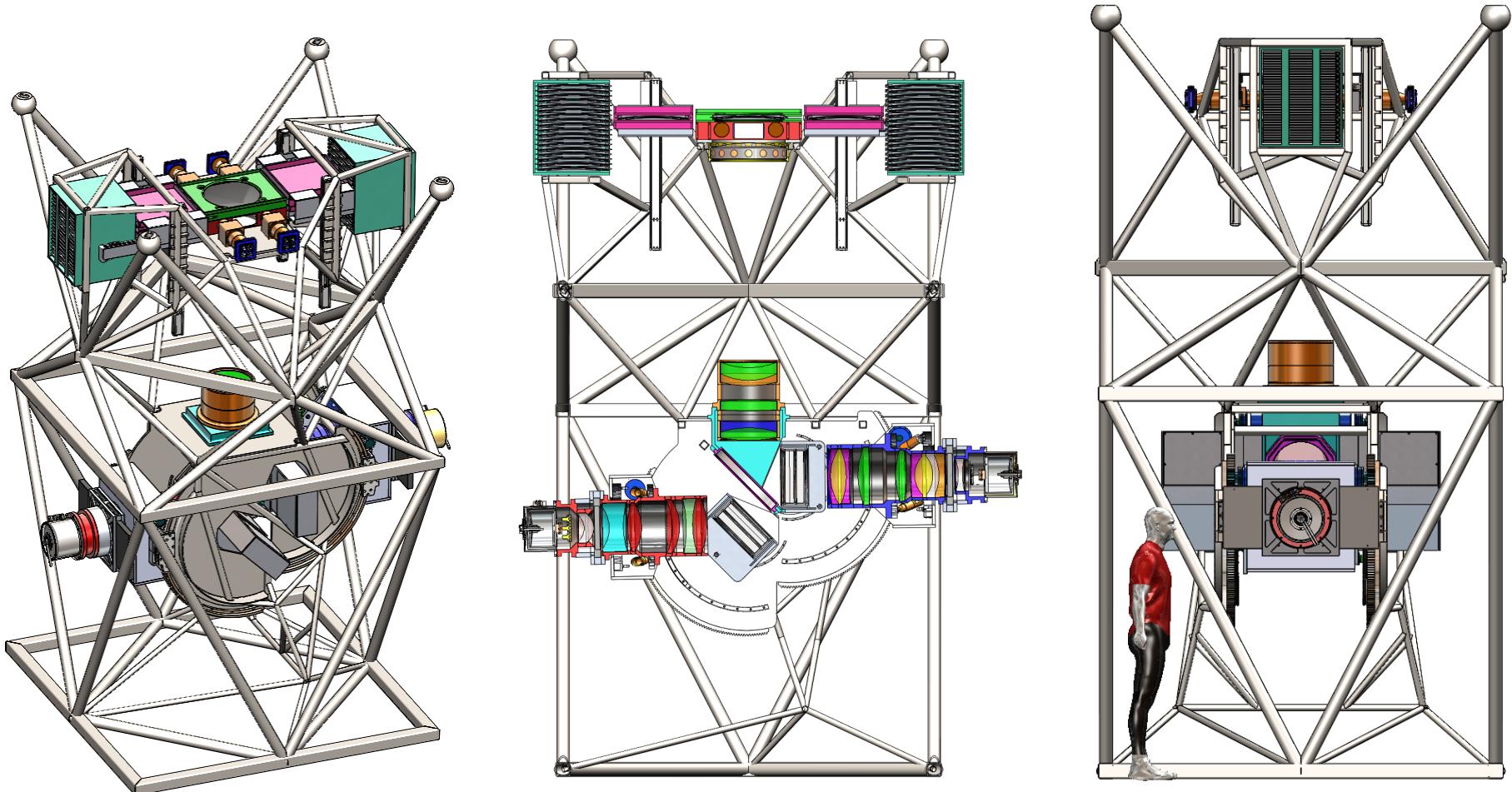
GMACS Structure & Optics Configurations

Travis Prochaska

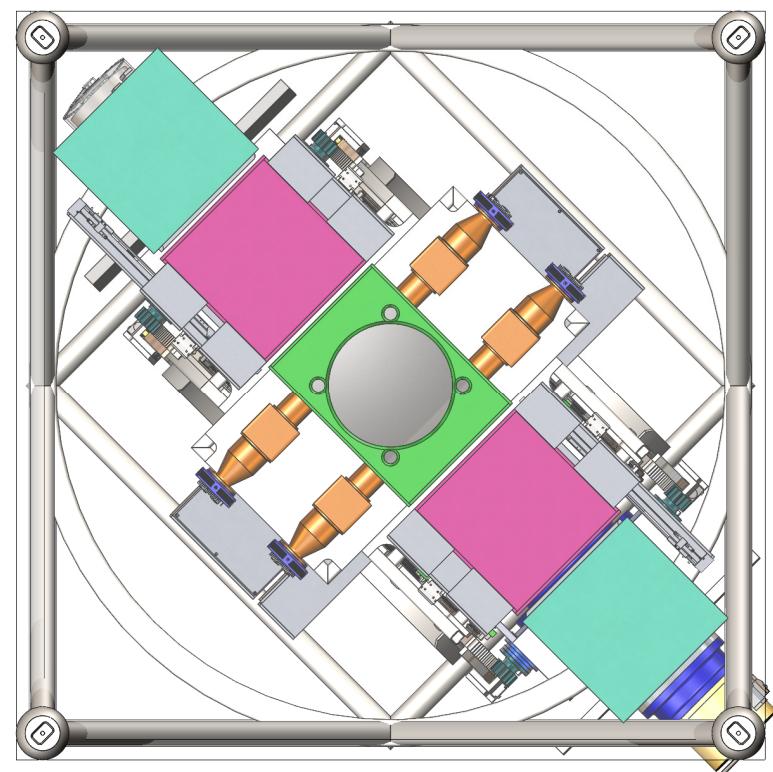
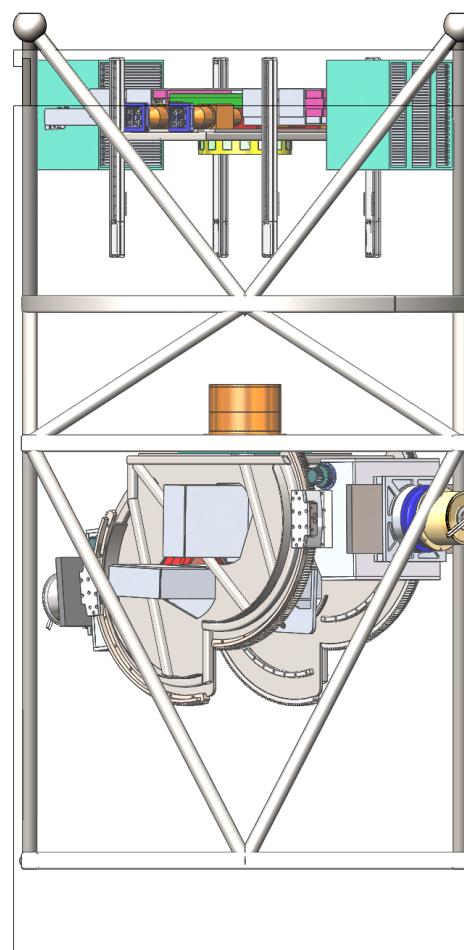
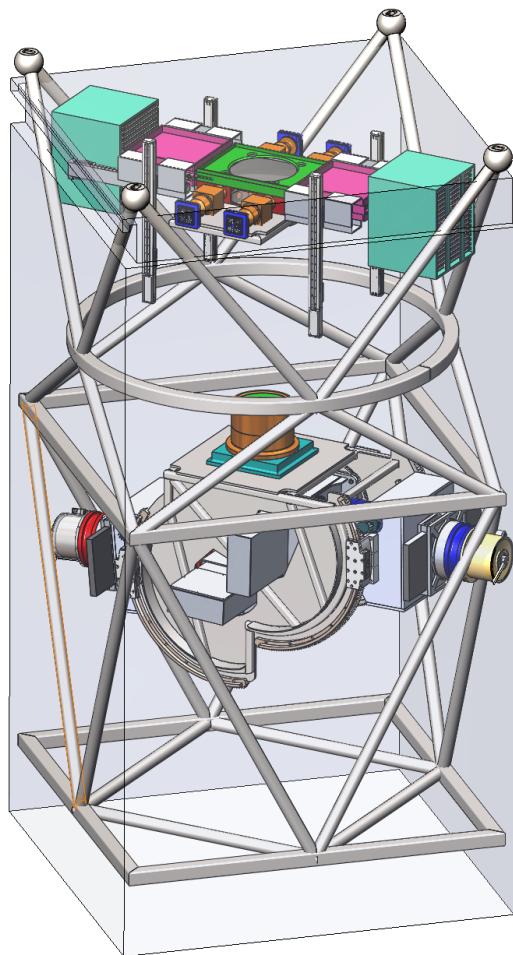
9/8/2016

Current Standard Model

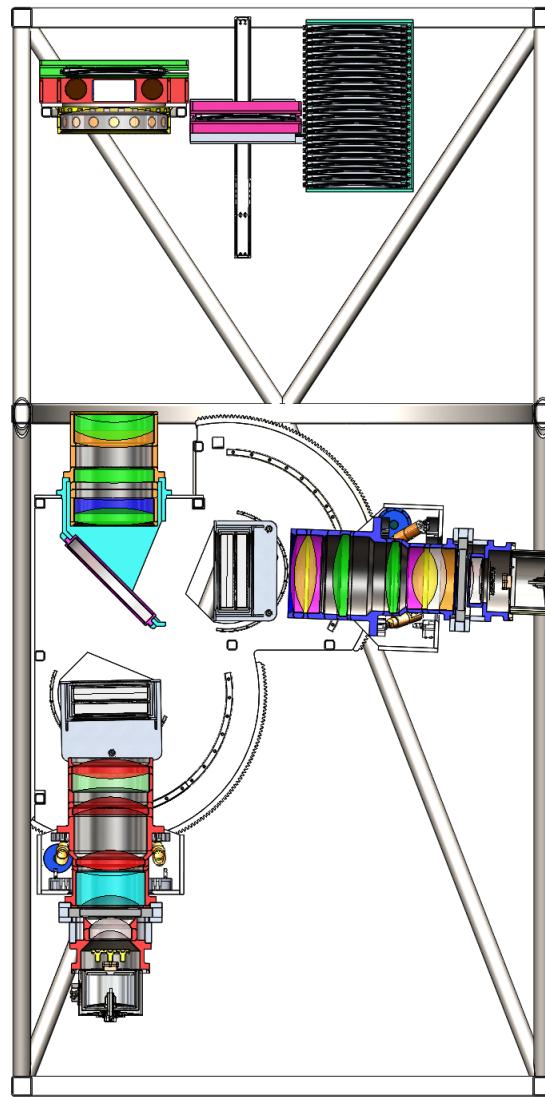
The current model sticks out of the frame a lot and this could be a big problem. The following configurations explore changing the optical layout within the frame to see if there is an ideal way to make everything fit.



Standard Model – Clocked 45°

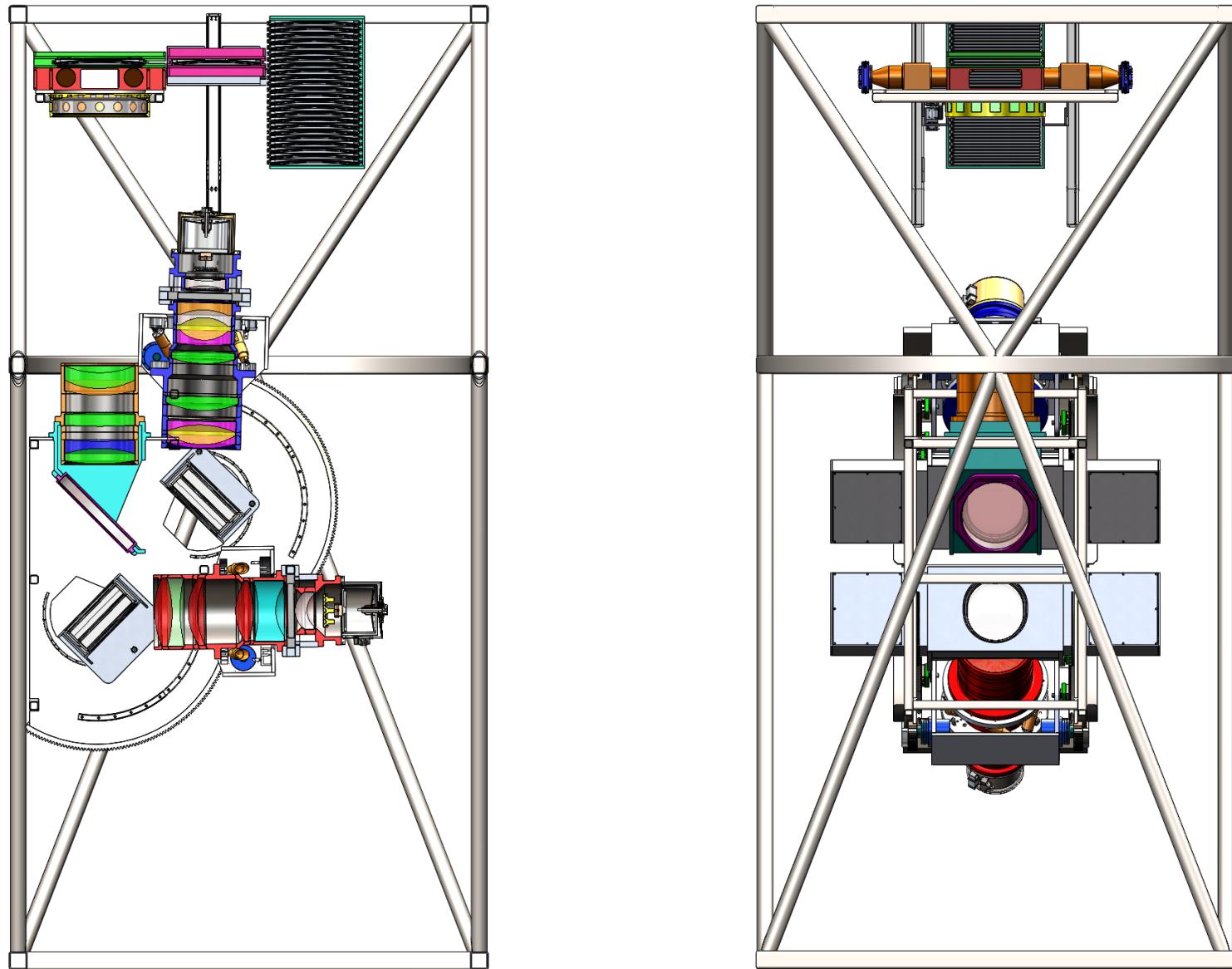


Modified GMACS – Offset 1

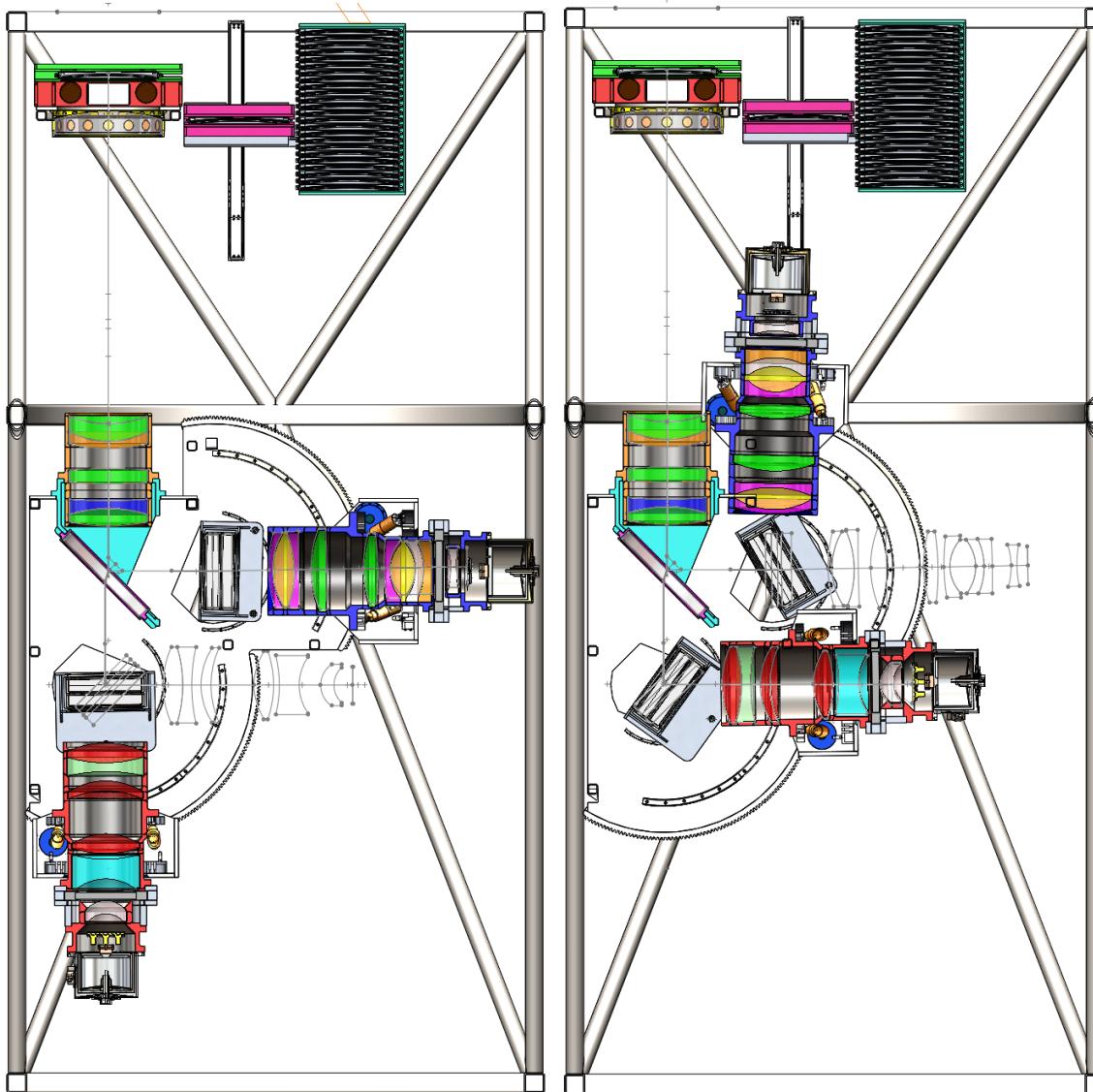


- Rotate Grating
- Remove 1 grating exchanger
- Shift optical axis off center
- Would not move instrument fully into the center of the GIR
- Optics Modification
 - + 250mm before grating
 - +50mm after grating

Modified GMACS – Offset 1

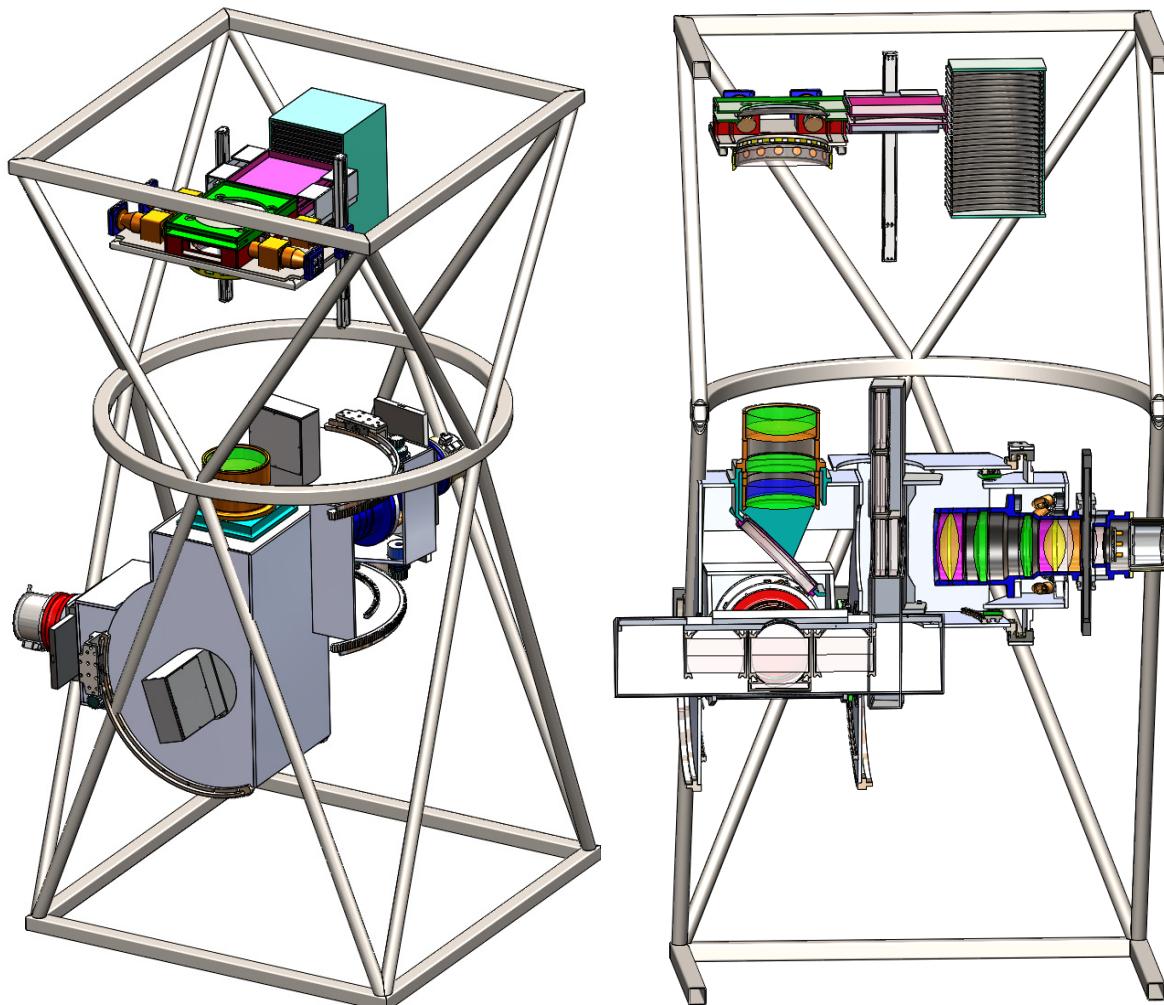


Modified GMACS – Offset 2



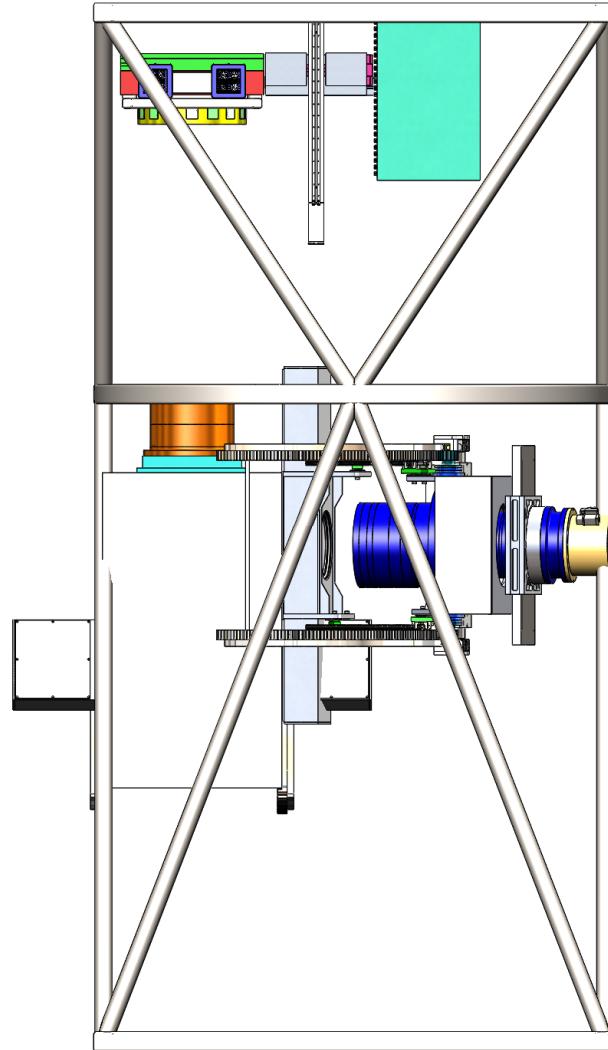
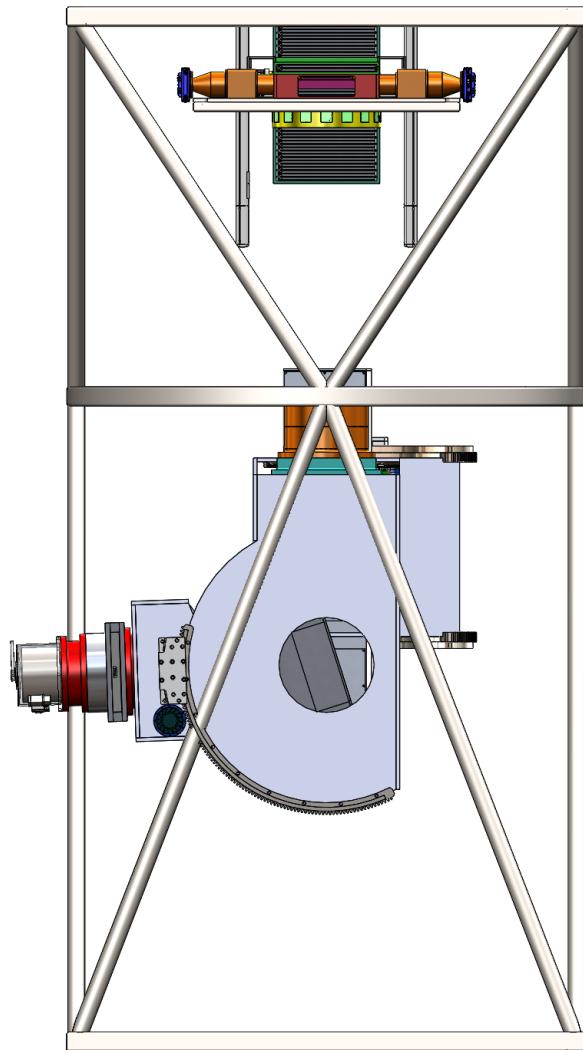
- Same as Offset 1
- Optics Modification
 - + 210mm before grating
 - +15mm after grating

Modified GMACS – Offset & Clock Grating

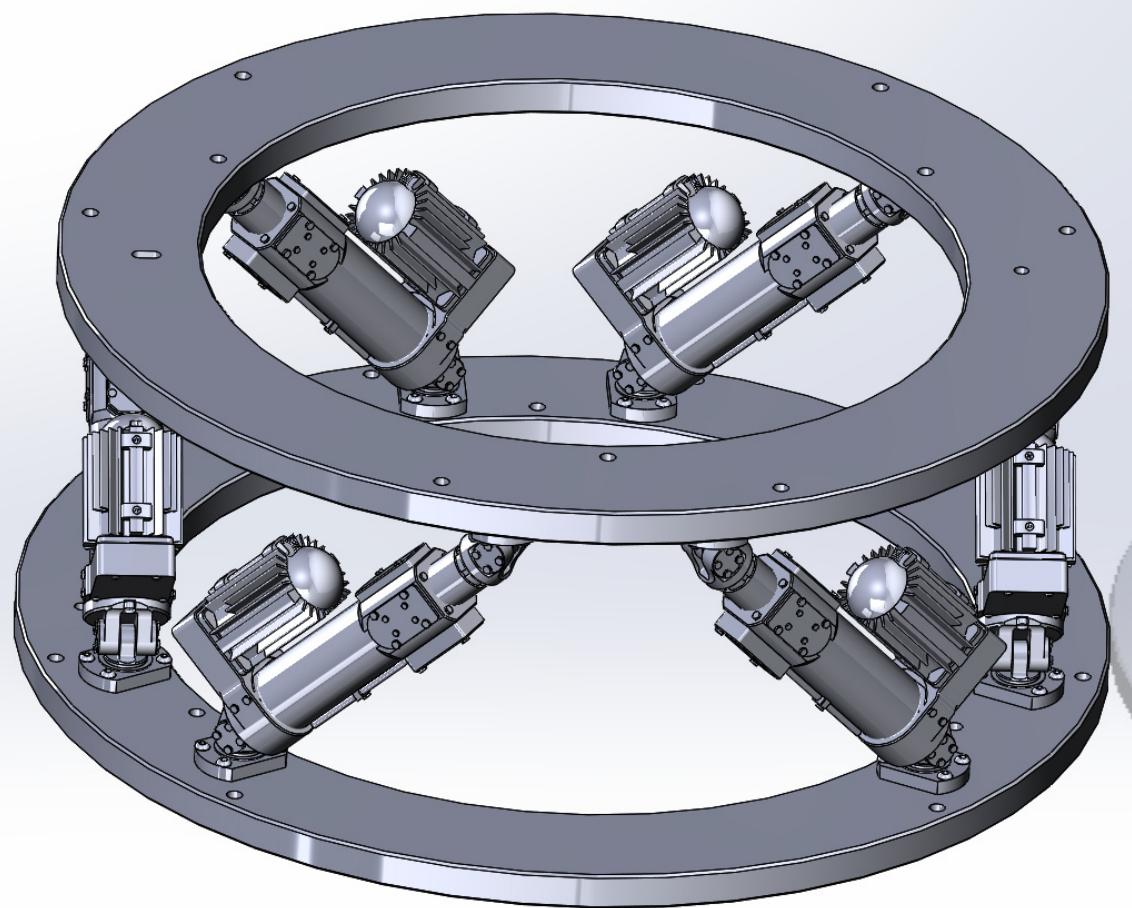


- Clock Grating 90°
 - This changes camera/grating rotation axis
- Remove 1 grating exchanger
- Shift optical axis off center
 - Would not move instrument fully into the center of the GIR
- Optics Modification
 - + 250mm before grating
 - +50mm after grating

Modified GMACS – Offset & Clock Grating



Symetrie Hexapod



750mm outer diameter
300mm nominal height

\$150K