



# Krakow SCT Design Concept

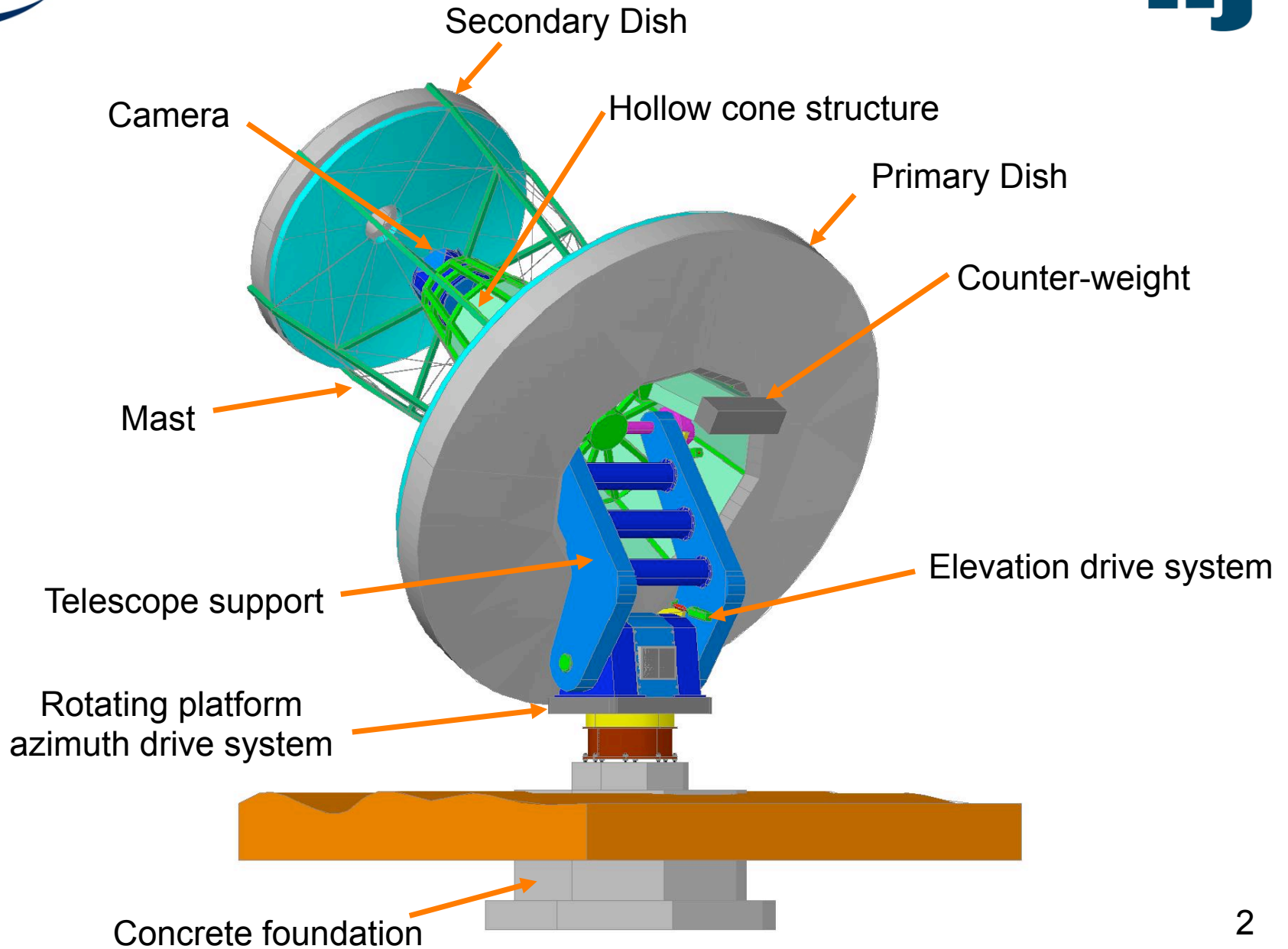
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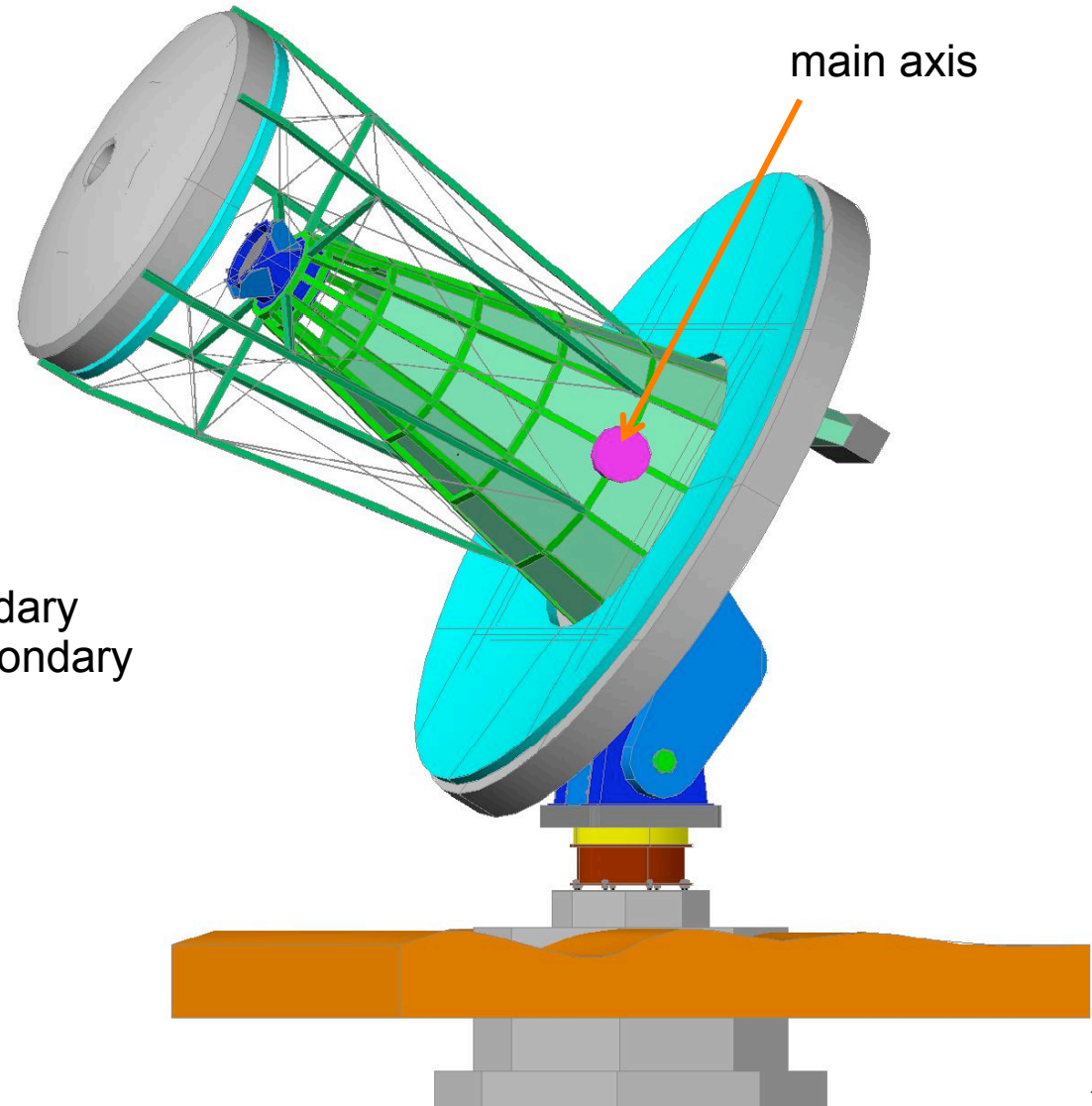
*presented by Jacek Niemiec*

*Institute of Nuclear Physics Polish Academy of Sciences  
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*Kraków, Poland*

# Telescope structure





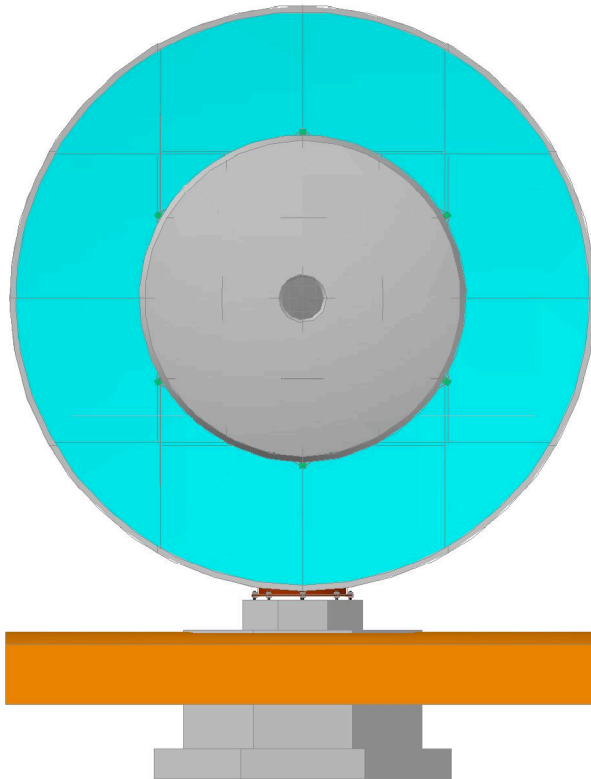
***Rigid central cone:***

- fixed to the main axis
- supports both camera and secondary
- facilitates alignment between secondary and camera
- affects no stresses on primary

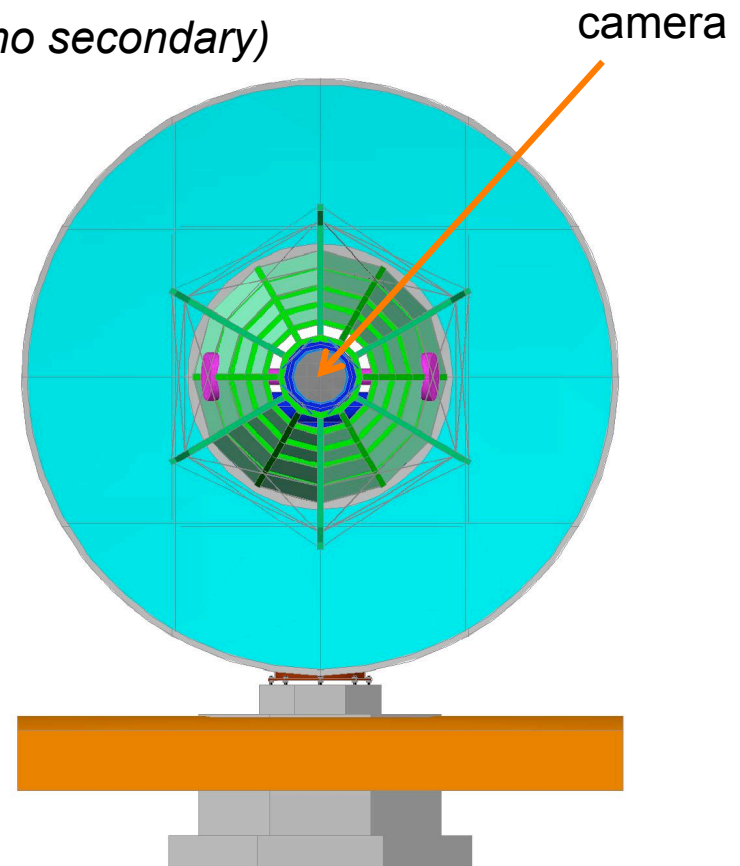
***Mast:***

- fewer truss profiles to minimize shadowing
- tension rods to increase stiffness

*front view*

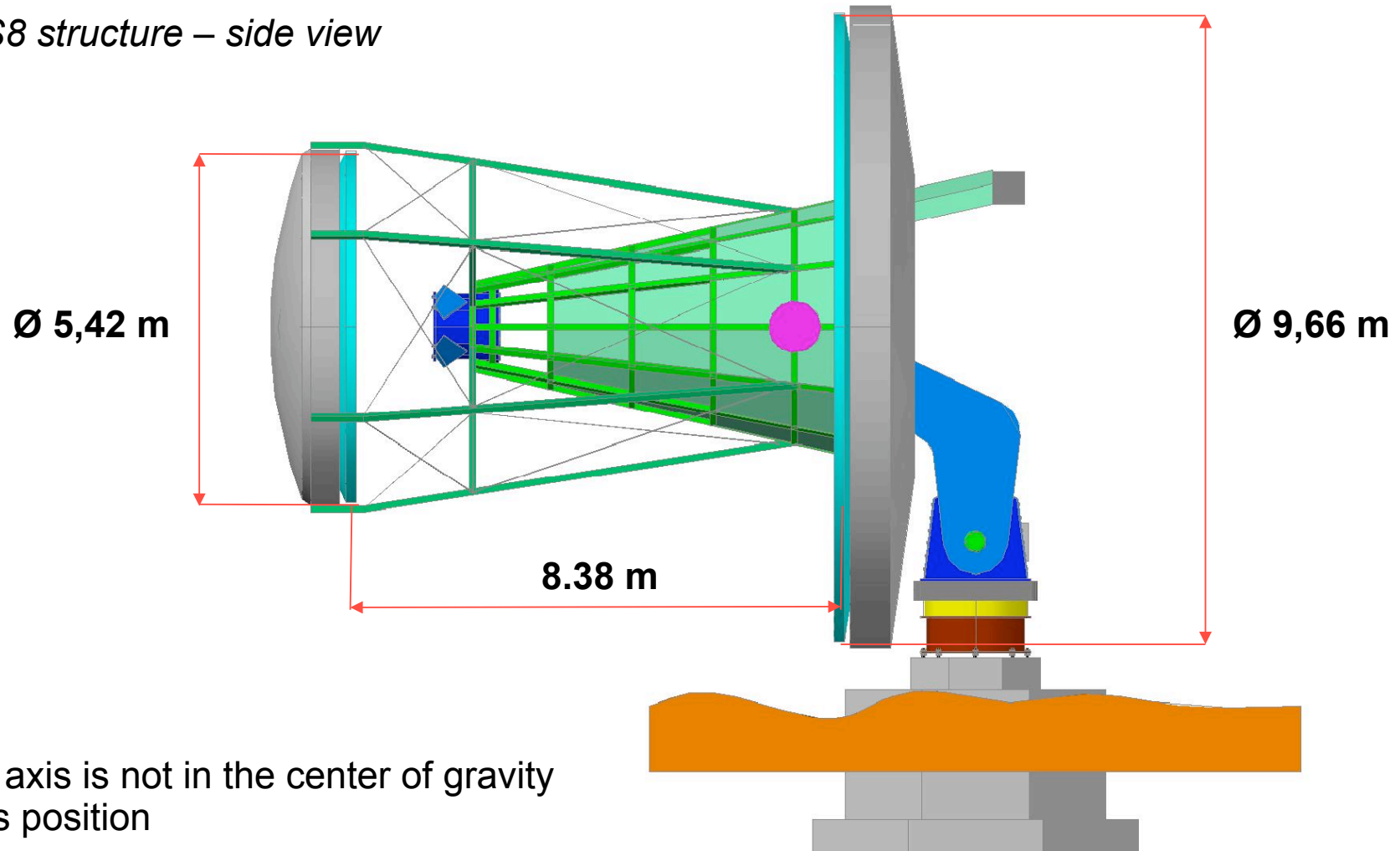


*front view (no secondary)*



- rigid central cone in shadow of secondary

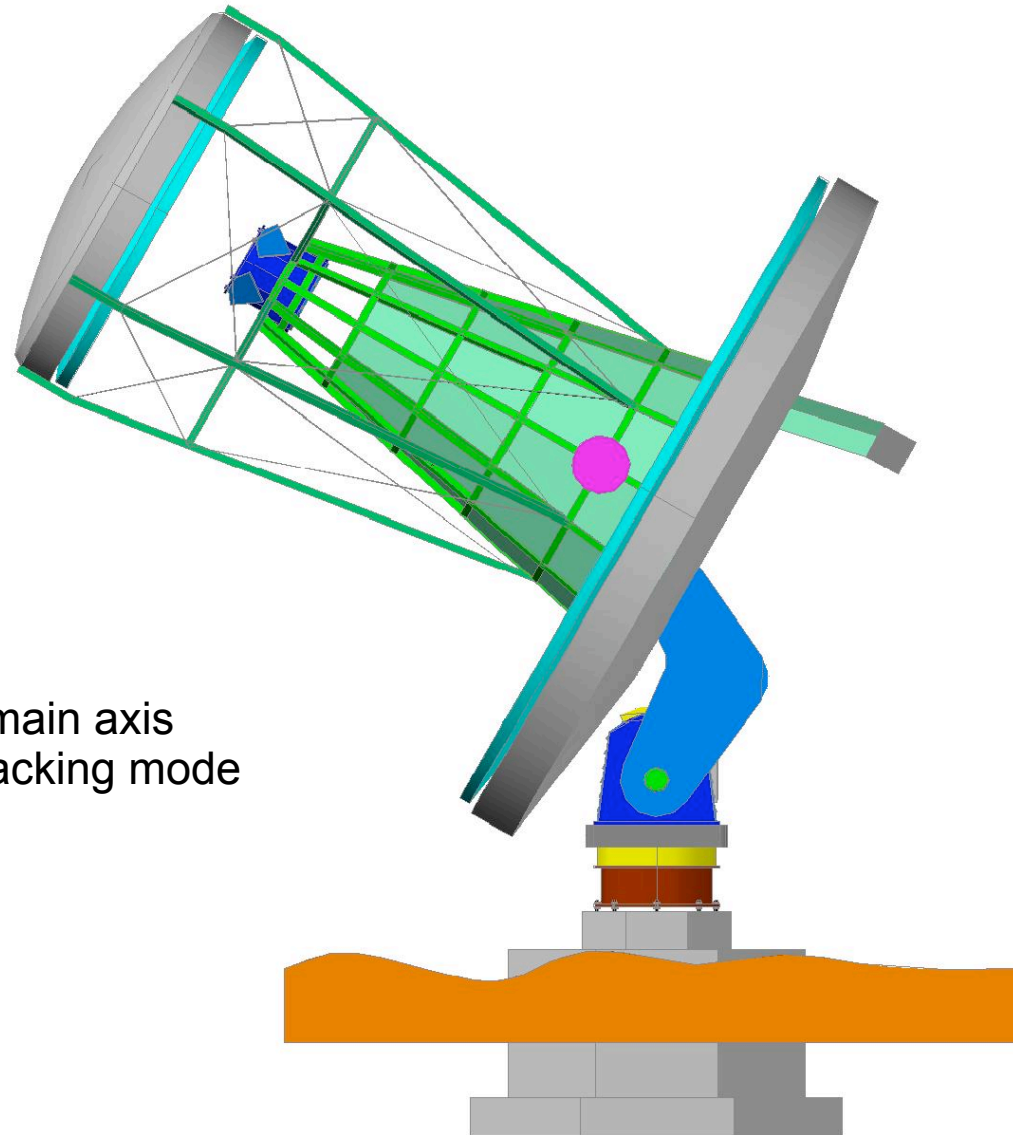
OS8 structure – side view



- main axis is not in the center of gravity at this position



*side view*

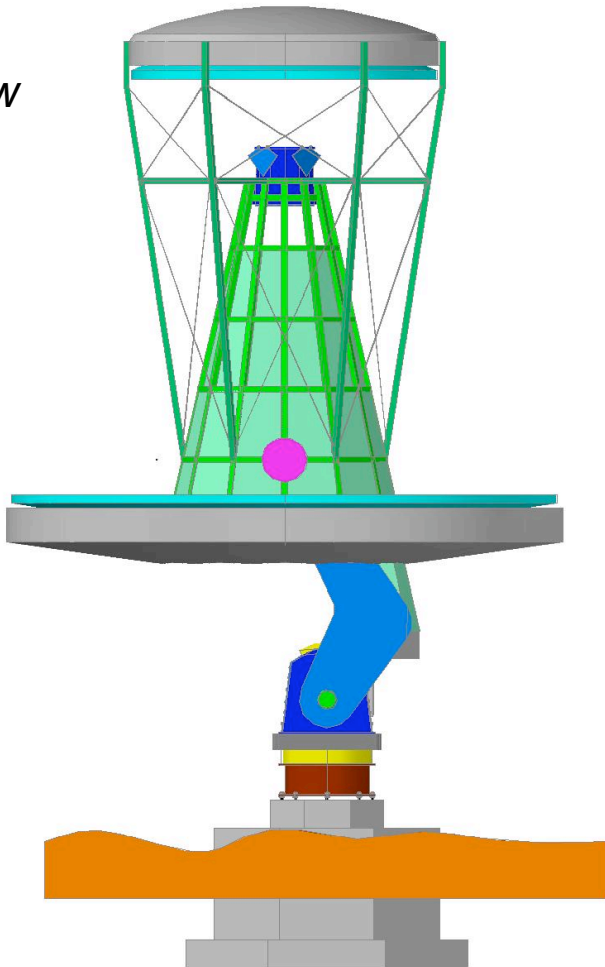


- structure balanced around main axis at this elevation – start of tracking mode

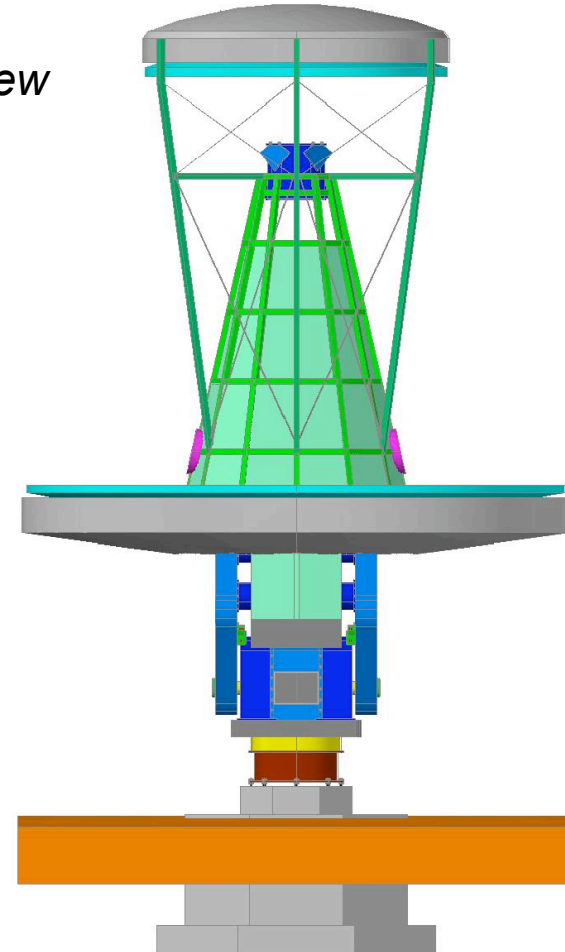
# Telescope at tracking position 95°



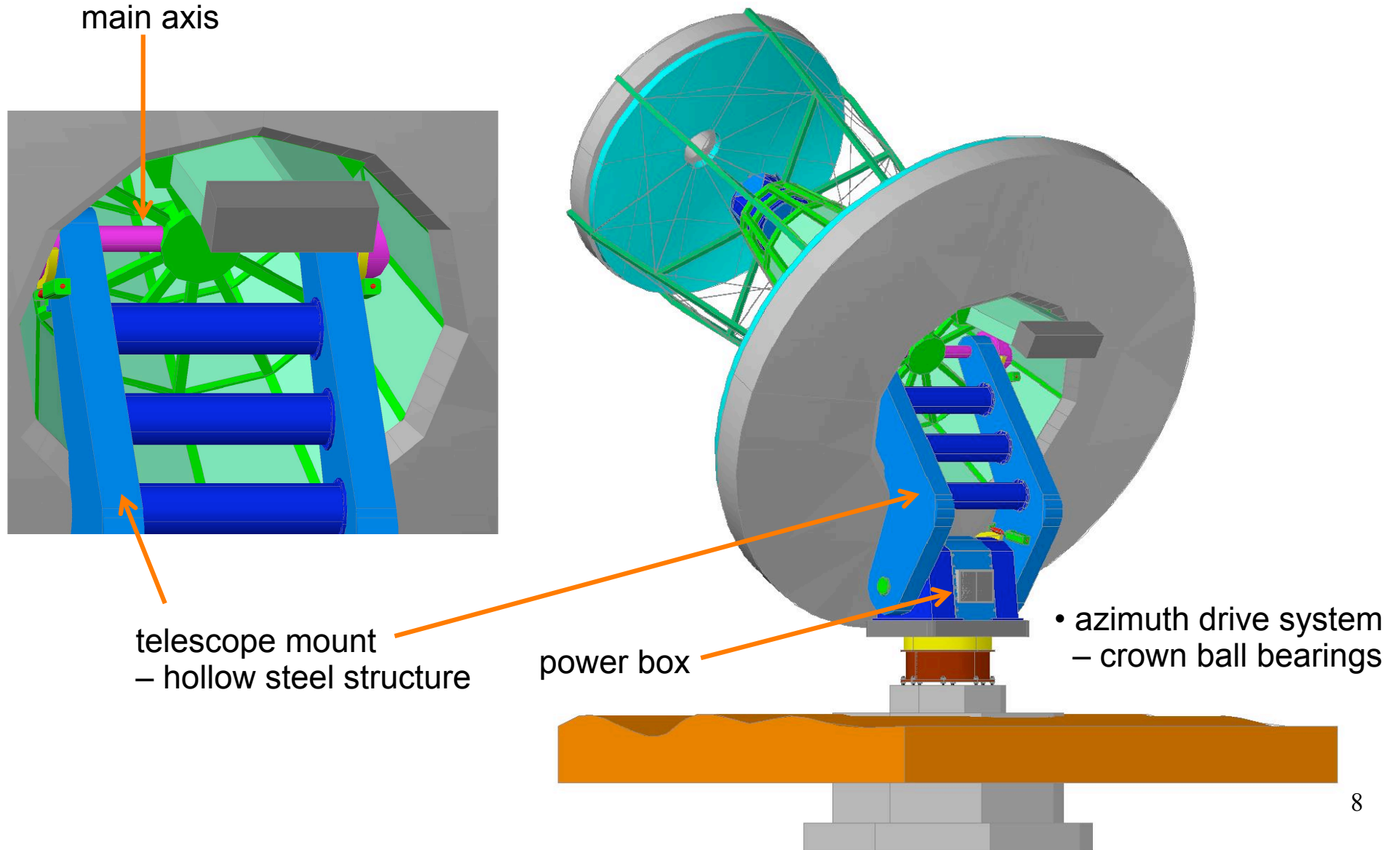
*side view*



*back view*



- counterweight hidden in between the arms of the telescope support



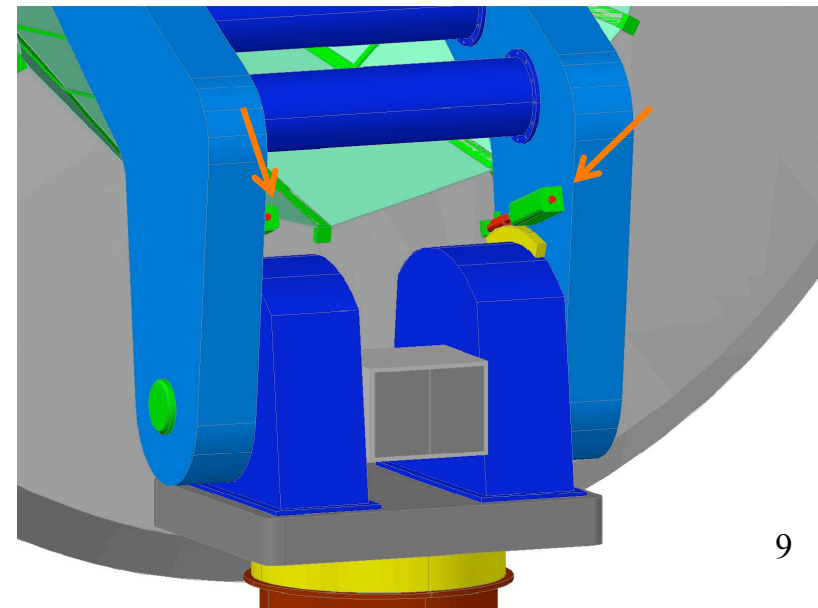
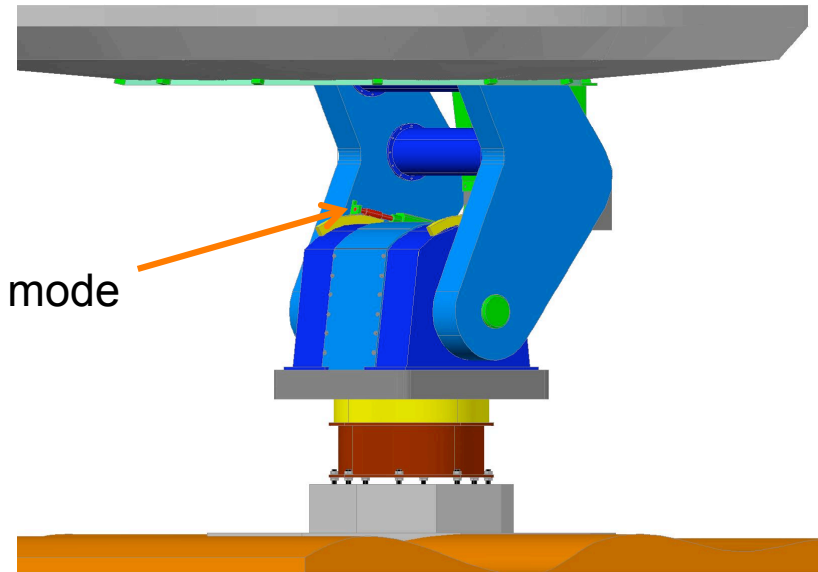
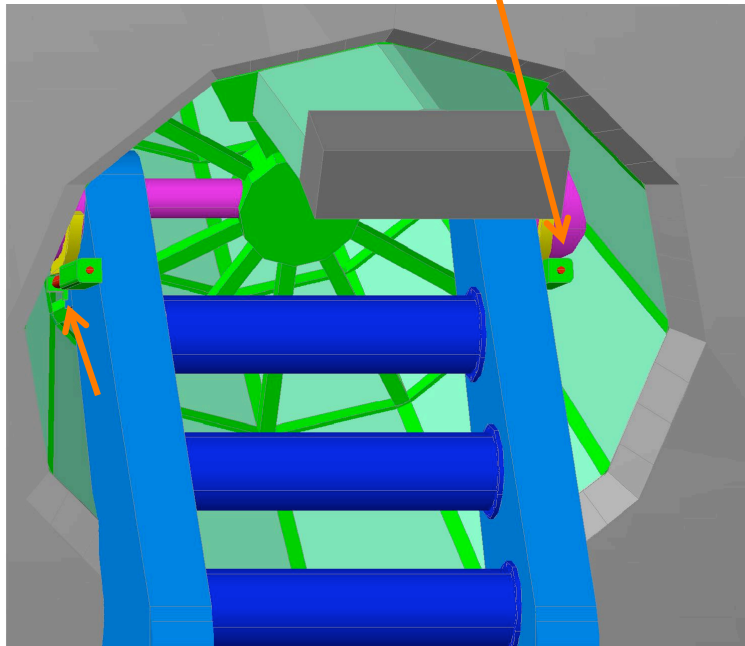




- elevation drive based on worm drive system

two motors for positioning mode

two motors for tracking mode





## Future plans



- provide an engineering solution for the telescope mount (after August 2012)
- contribute to mechanical structure design (mount + OSS) – scale of involvement will depend on the situation with DC-SST prototyping
- possibly build a prototype for the SCT mount at IFJ PAN