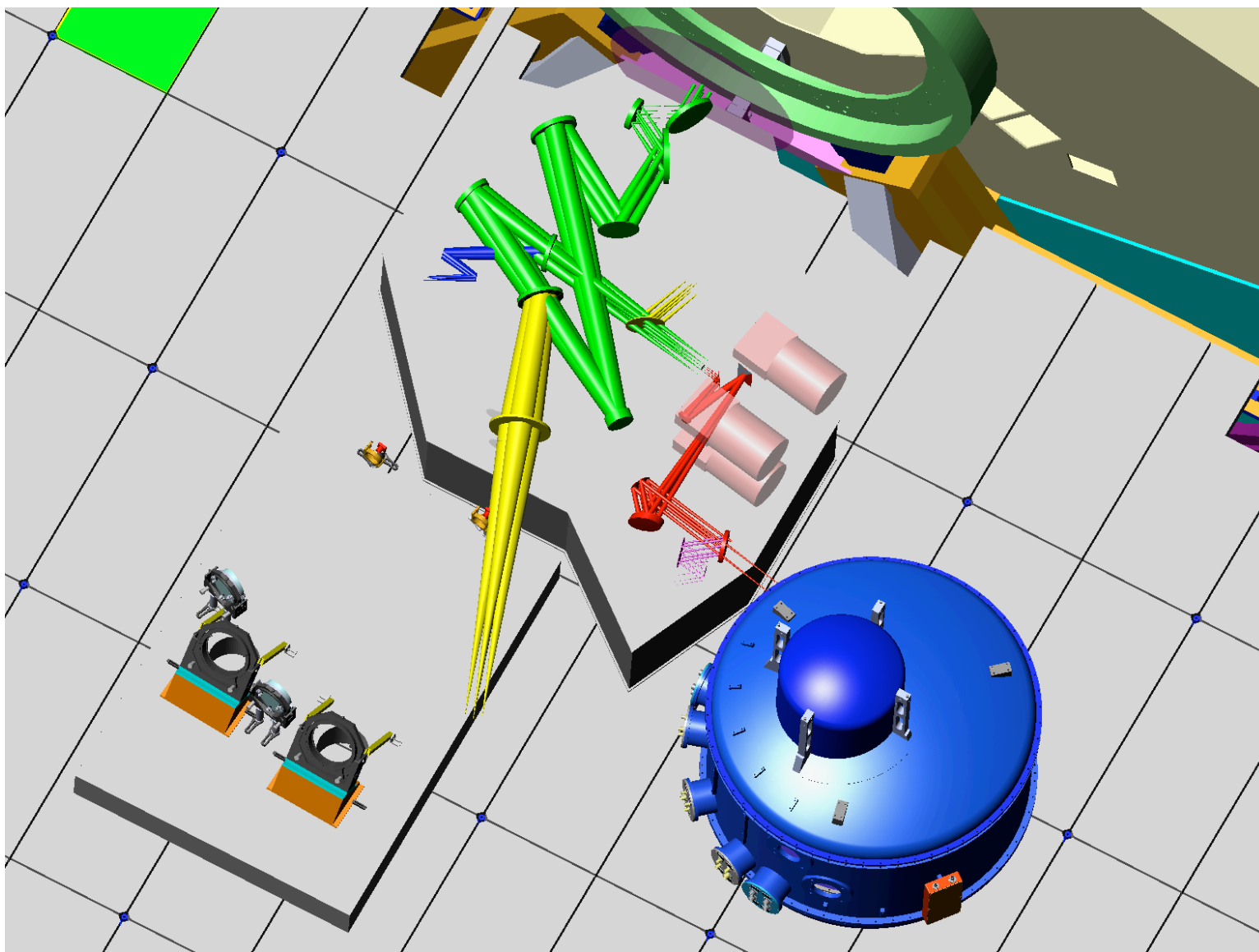
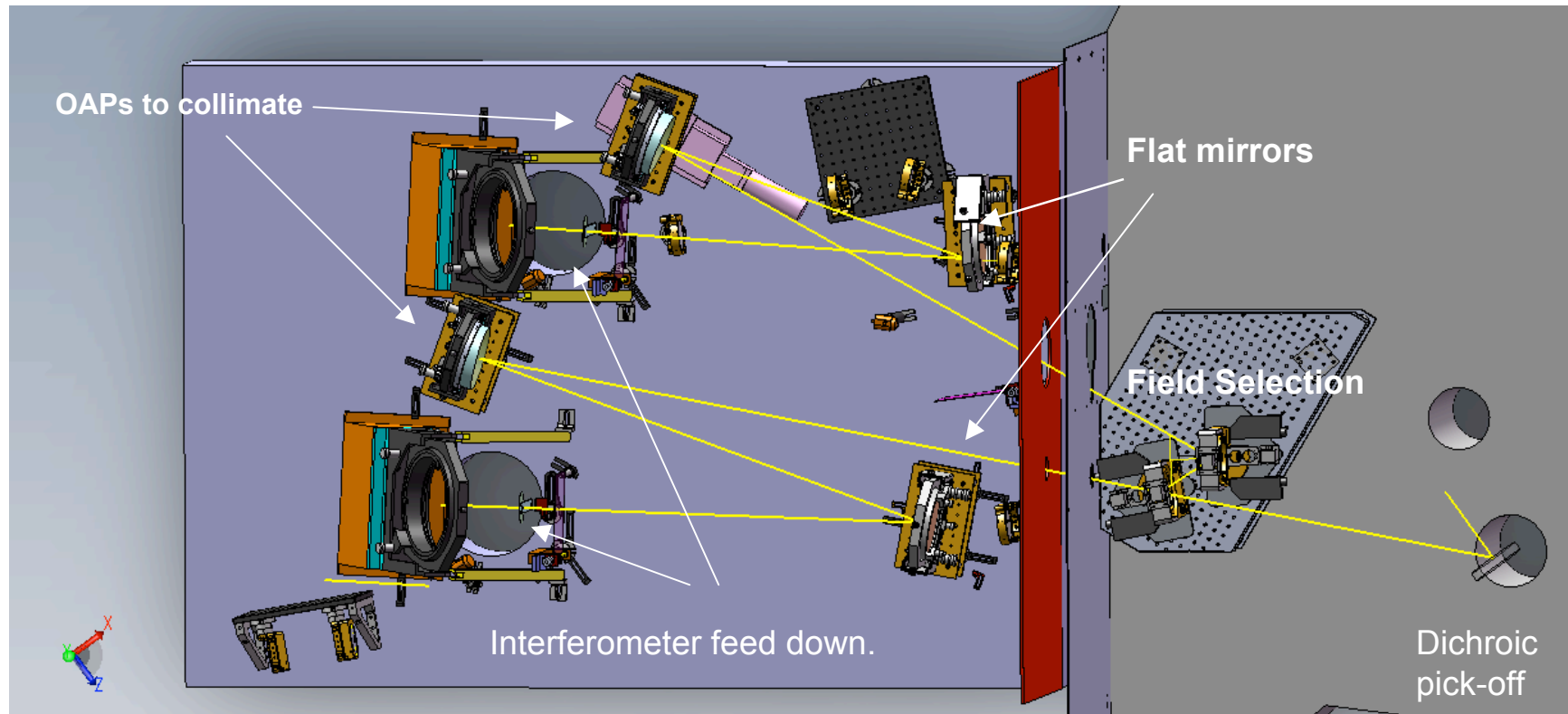


# KNGAO Interferometer feed

31 Aug, 2009



KNGAO relay design superimposed on existing Keck DSM bench. Interferometer feed is in blue.

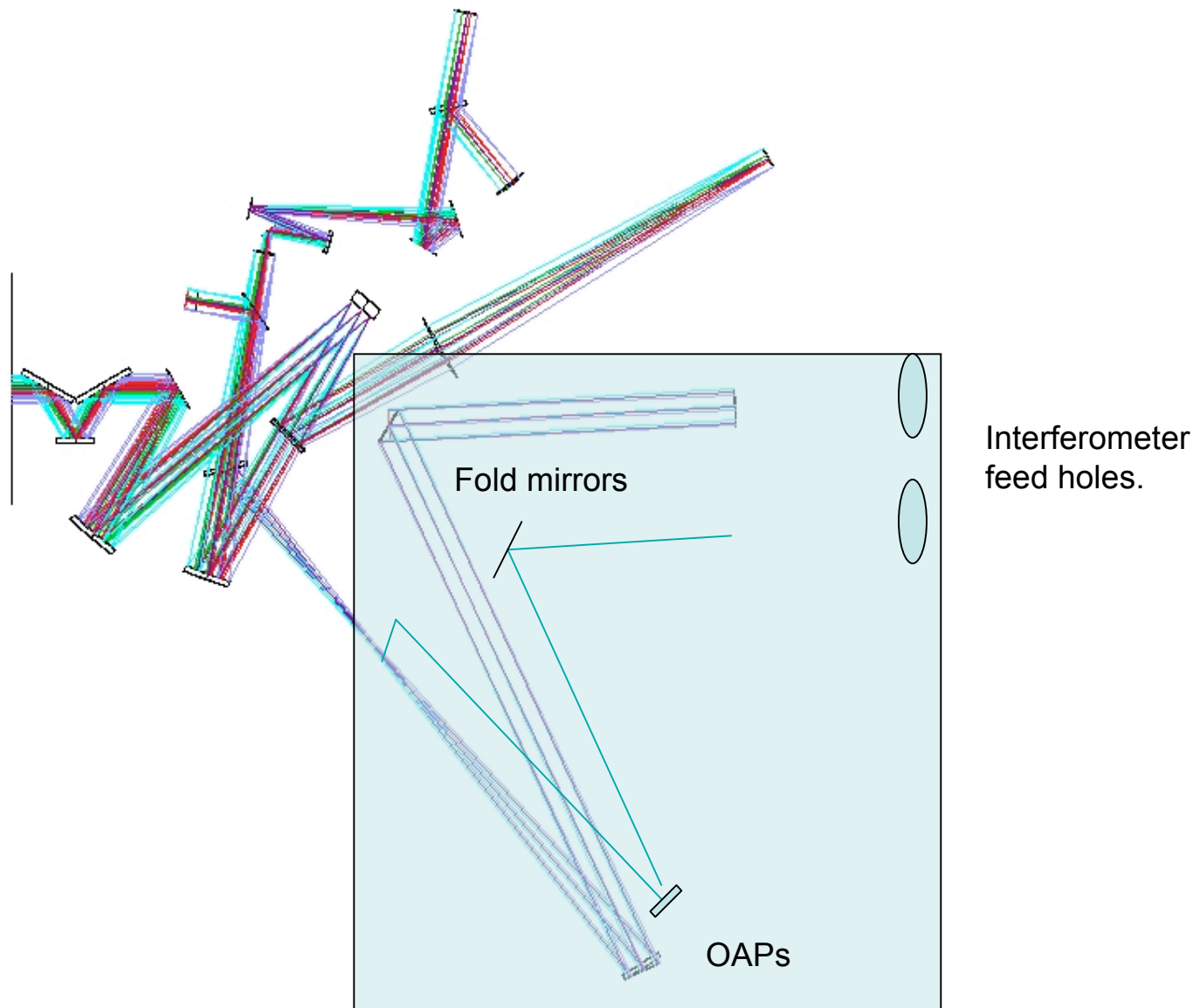


### DSM bench, ASTRA configuration.

Interferometer modes to be supported all require converging-to-focus beam. Near focus a field selector allows the on-axis field to pass straight through a hole in the center of the first of a pair of FSMs. The beam is collimated by an OAP (of focal length approximately 1800mm), and is directed by two flat mirrors to the hole in the Nasmyth floor. A second star is selected by the FSMs, is collimated by a different OAP, and is directed to a separate interferometer access hole by two flat mirrors.

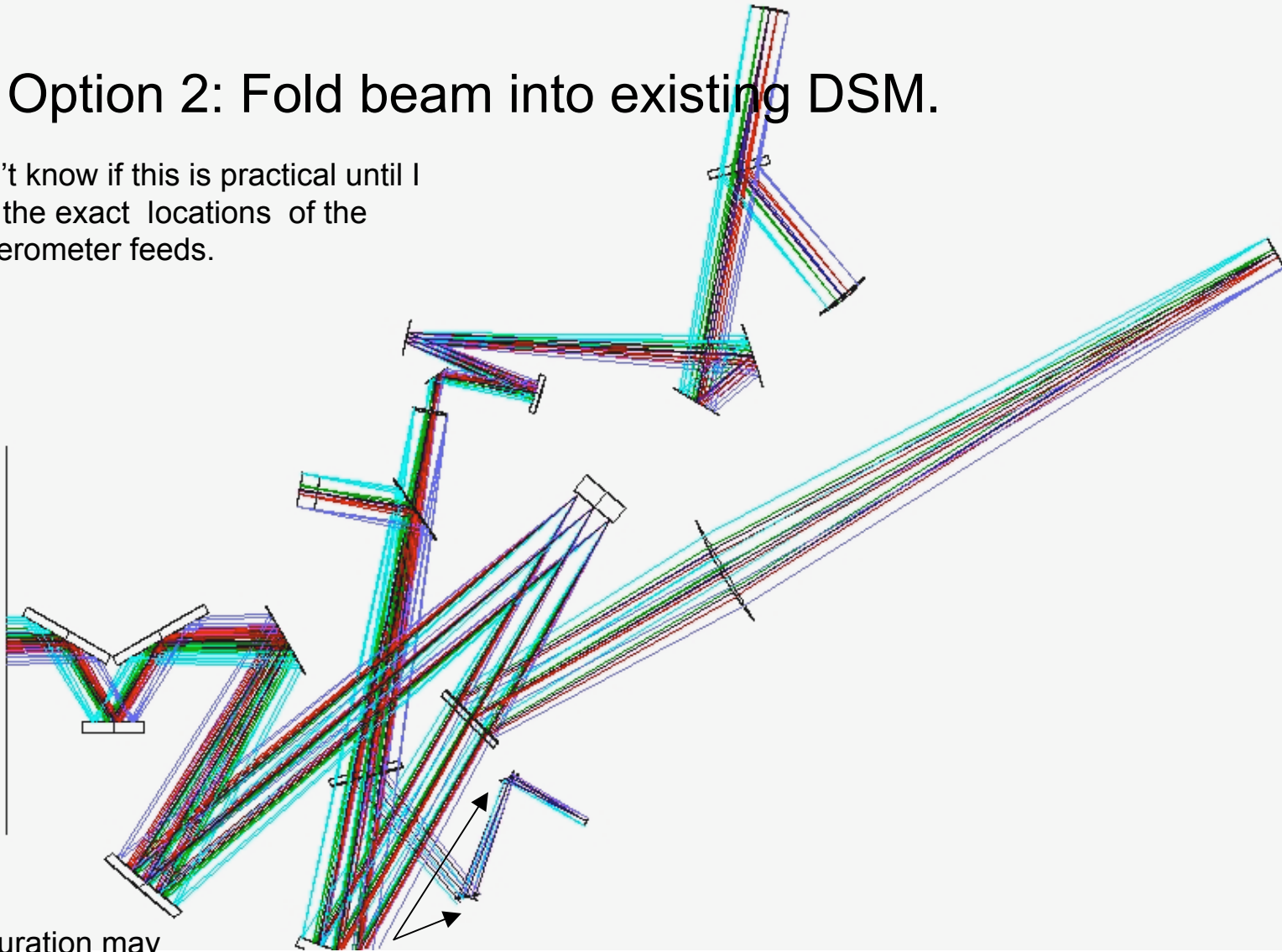
The field selector is located on the AO bench. OAPs and flat mirrors are on the FSM bench.

## Option 1: Modify existing DSM bench.



## Option 2: Fold beam into existing DSM.

I won't know if this is practical until I have the exact locations of the interferometer feeds.

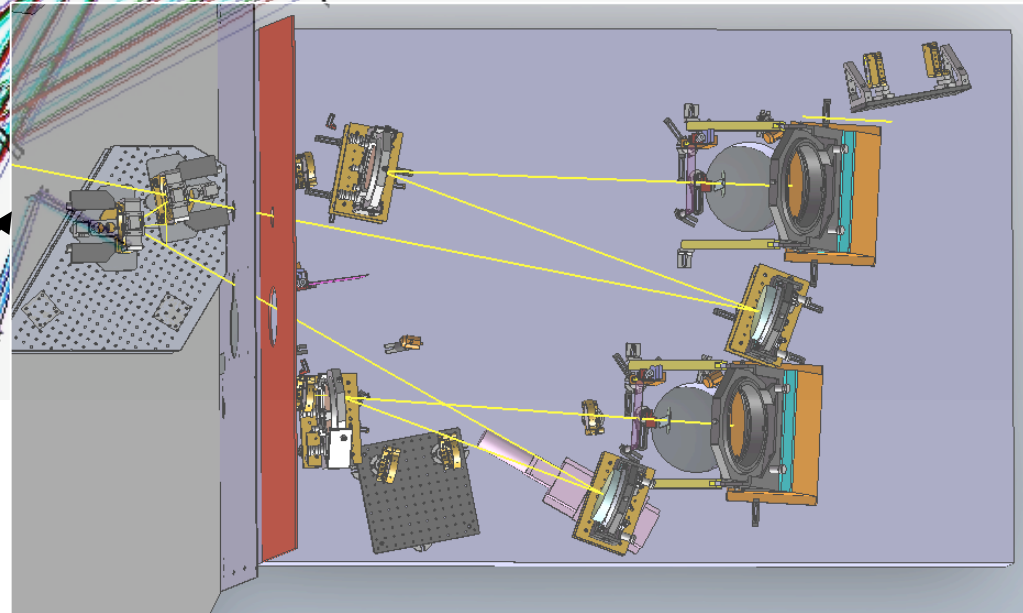
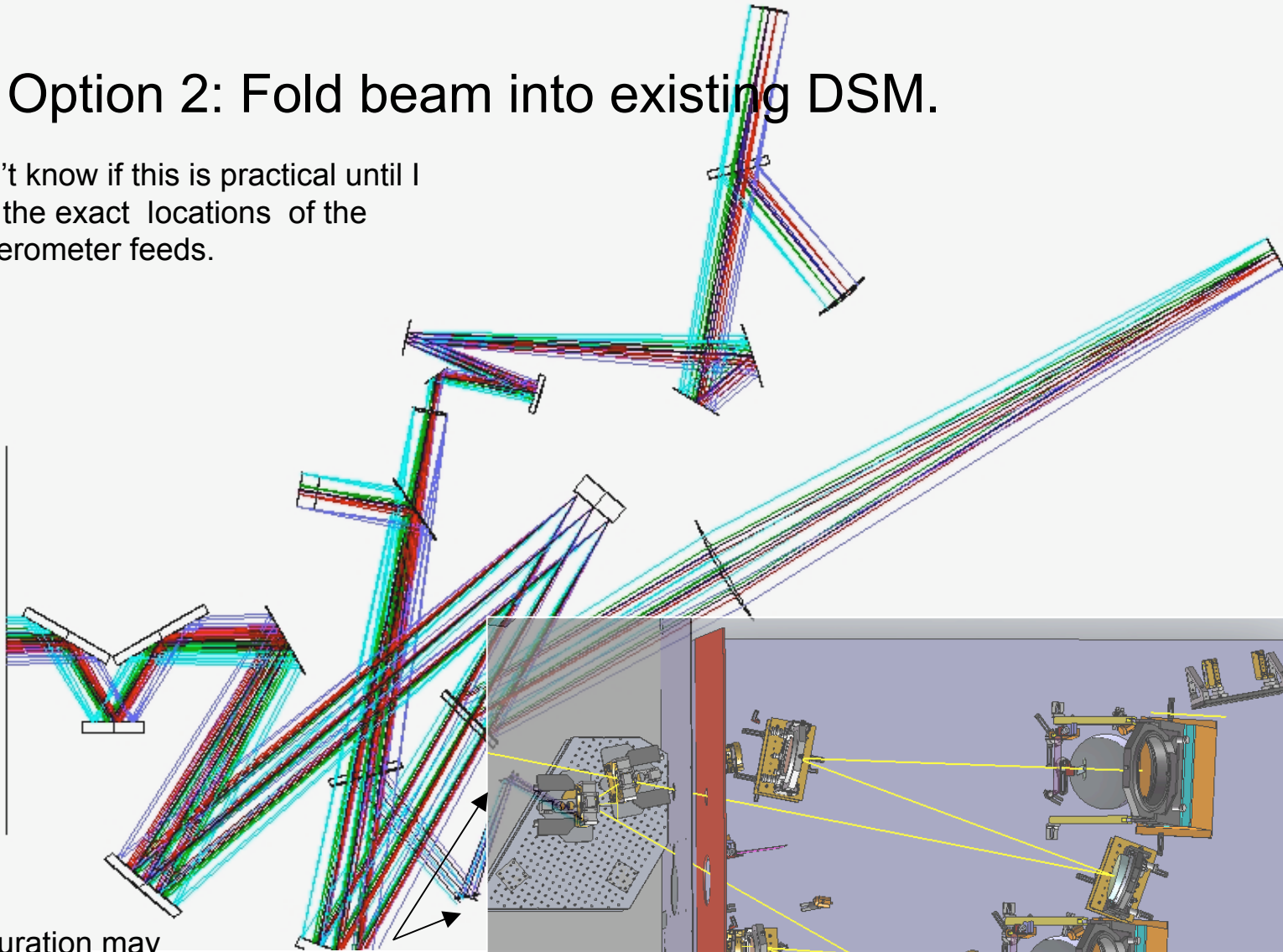


**Fold mirrors**

This configuration may not be optimal from a polarization perspective - there are two additional reflections with fairly large incidence angles.

## Option 2: Fold beam into existing DSM.

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**Fold mirrors**

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