

# Concept of Black Tube for AS Port

Yuta Michimura

Department of Physics, University of Tokyo

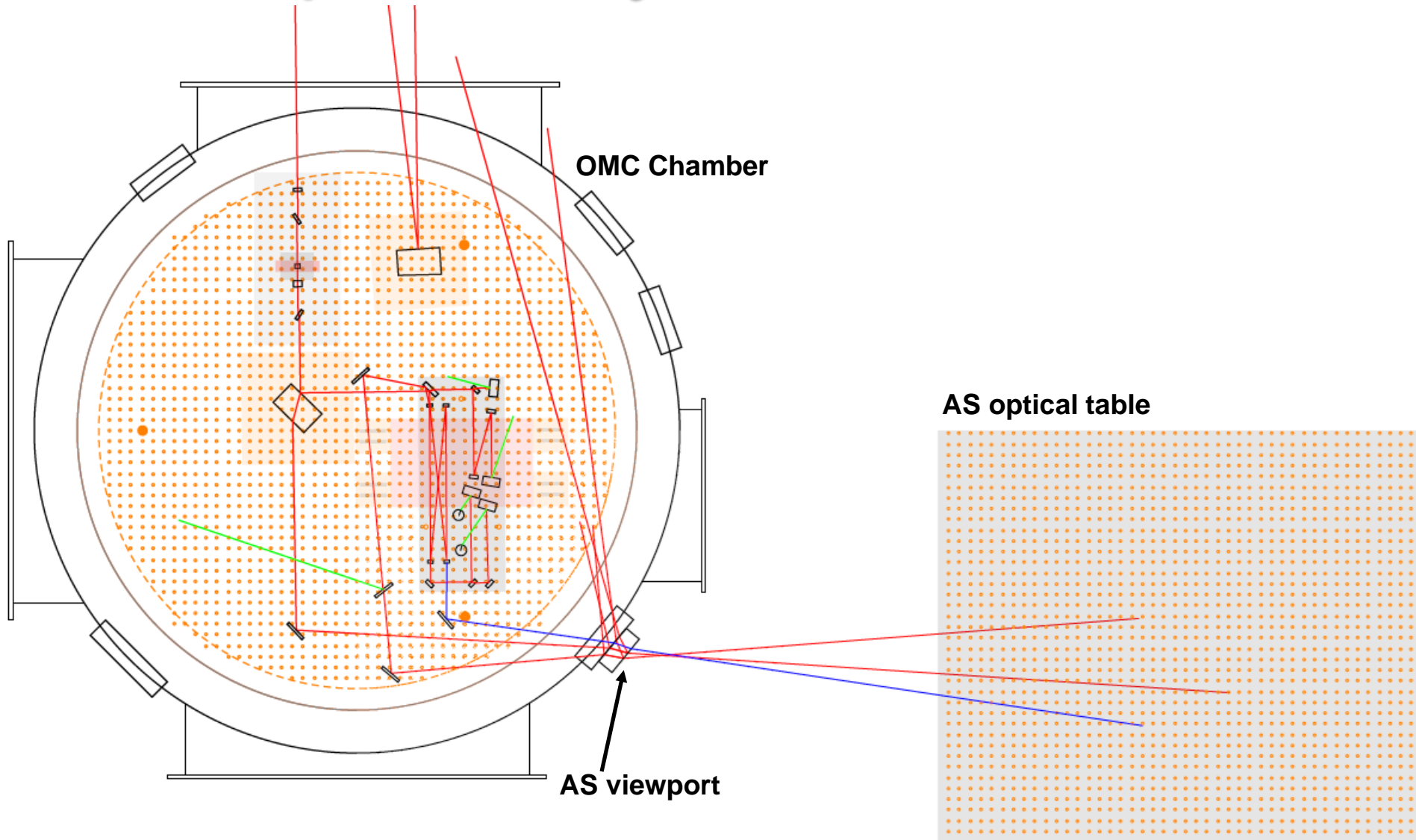
# Overview and Material

- We need a back tube for AS viewport so that less ambient light goes into the OMC chamber, and to protect AS viewport.
- Material: Some metal (Al?) coated black with low scattering, not very expensive (数万円? ; may be not Solblack?; spray [トビカブラック?](https://www.thorlabs.co.jp/newgrouppage9.cfm?objectgroup_ID=6413)). Something similar to <https://anshitsu.scientex.co.jp/products/darkbox/oc.html>  
[https://www.thorlabs.co.jp/newgrouppage9.cfm?objectgroup\\_ID=6413](https://www.thorlabs.co.jp/newgrouppage9.cfm?objectgroup_ID=6413)

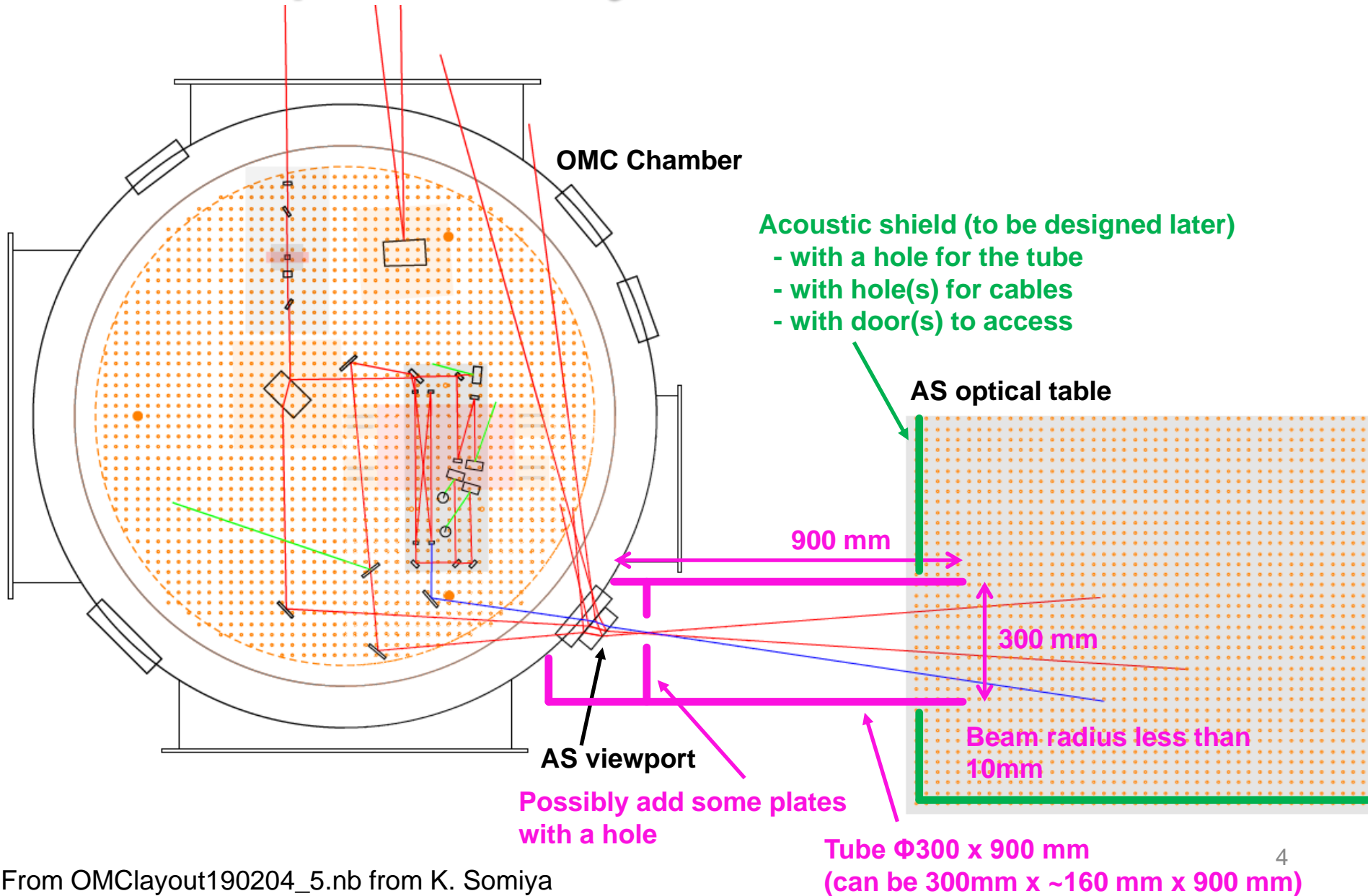


- We will need similar tubes for POP, POS, REFL, TRX/Y, IMC REFL, IMC TRANS, and oplevs

# Optical Layout and Tube



# Optical Layout and Tube



# OMC Chamber AS Viewport



[klog #8032](#)

# OMC Chamber and AS Table

OMC Chamber



AS optical table

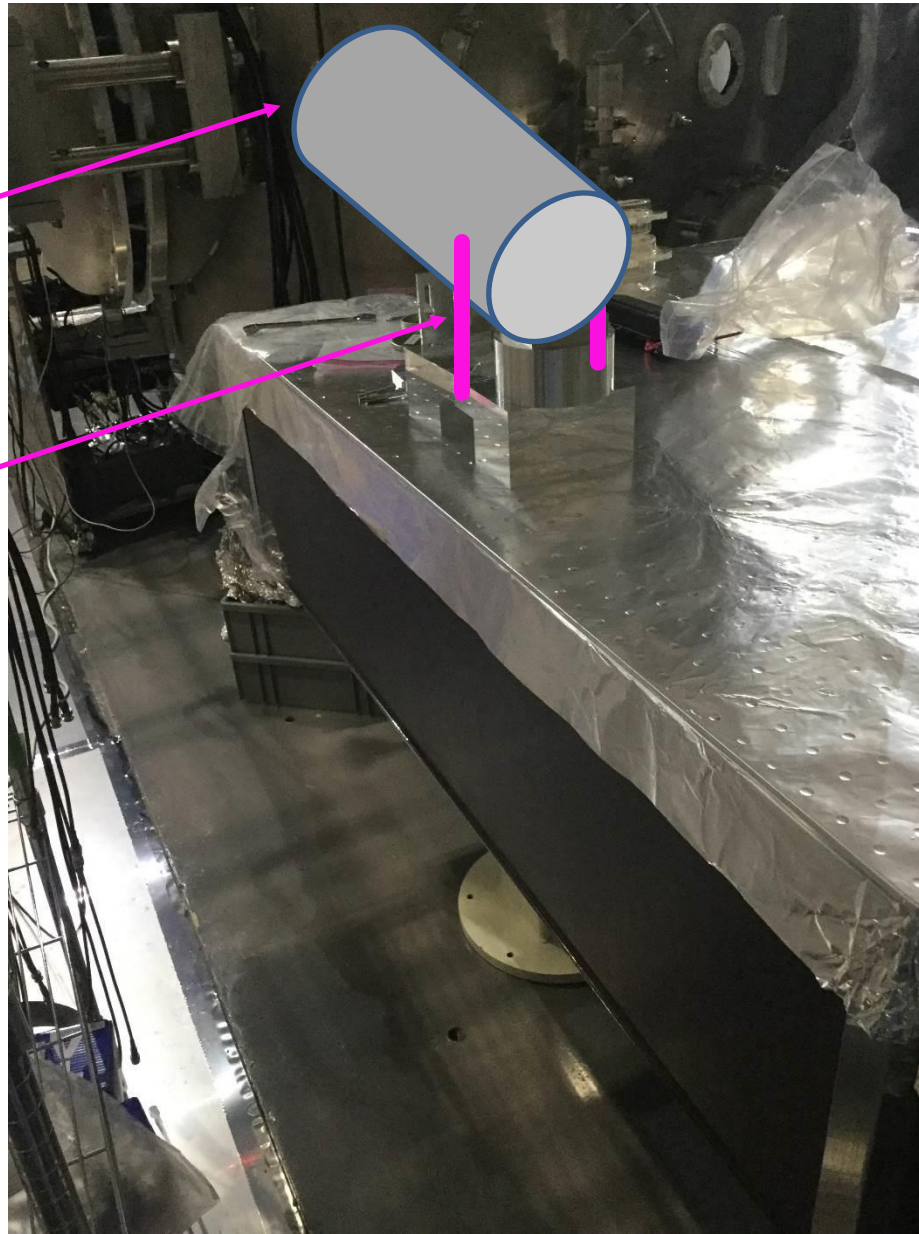
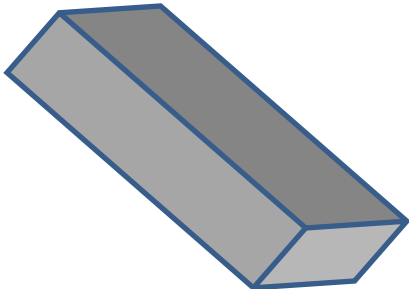
# OMC Chamber and AS Table

OMC Chamber

Somehow  
attach to OMC  
chamber to  
shutout the  
ambient light

Poles to support  
the tube

\* Cross section  
of the tube  
can also  
be a rectangle



AS optical table

# Budget and Schedule

- Budget: 数万円?
- Schedule: By June - July 2019?