

# MVTX Status WBS 3.2

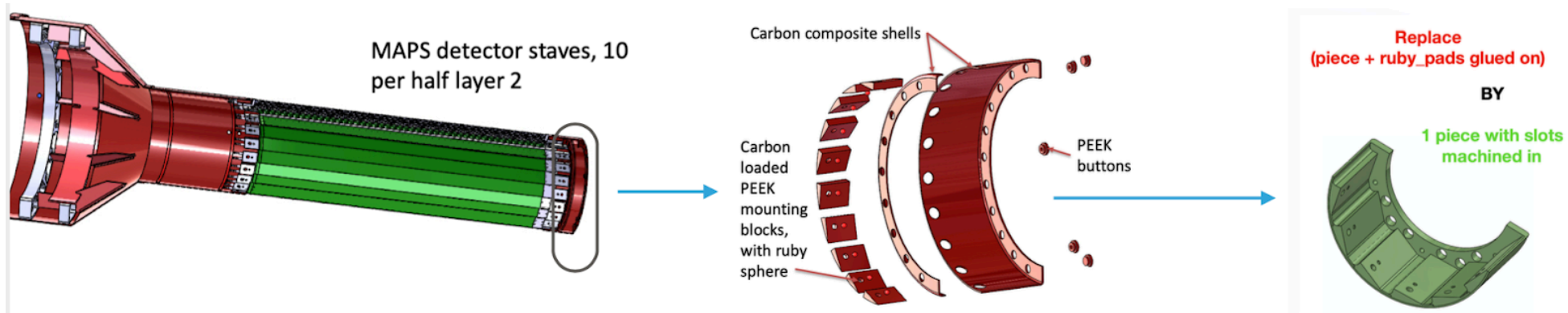
Ming Liu

sPHENIX L2 Meeting

03/05/2020

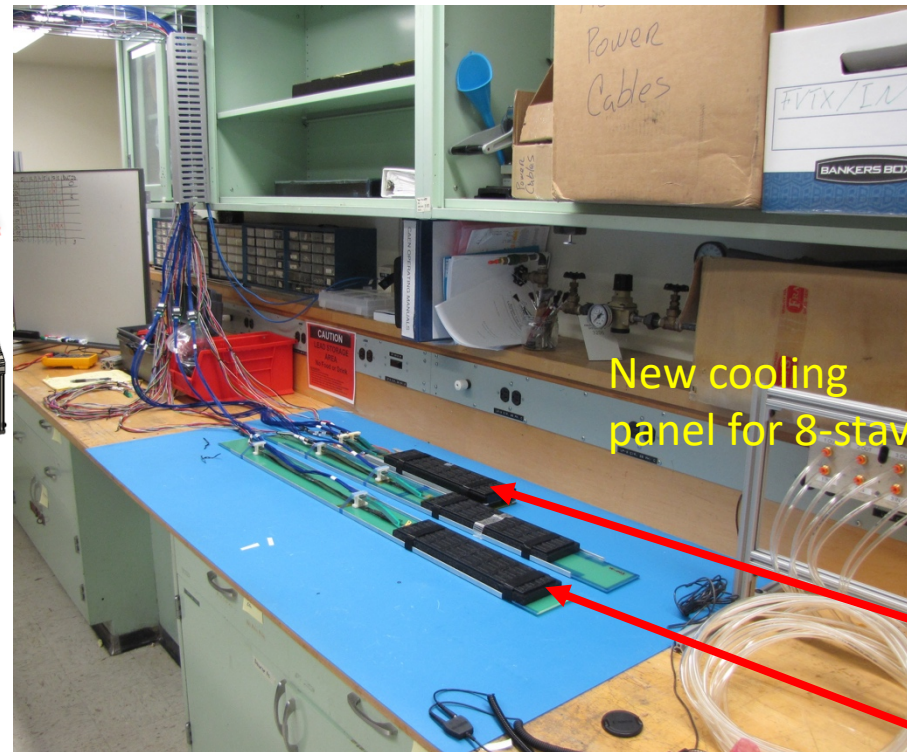
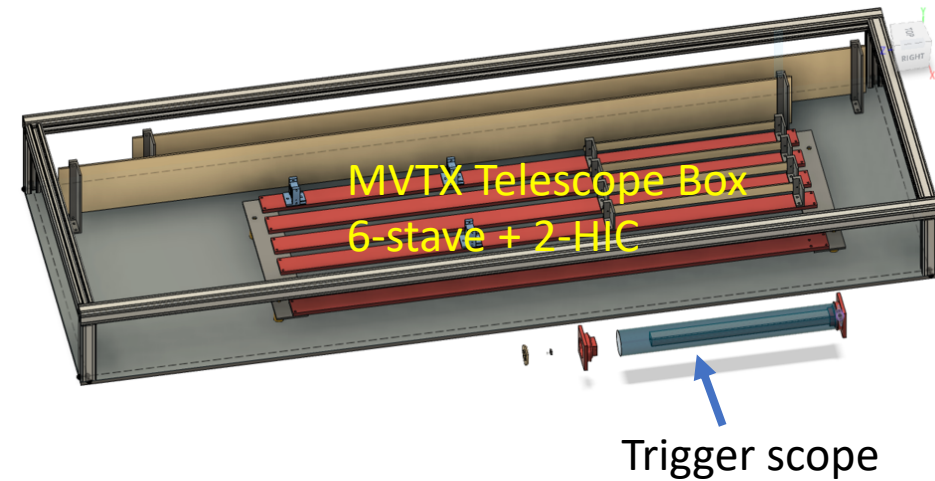
# Finalizing MVTX Mechanical Design

- Address recommendations from 1/29/2020 FDR
  - Added rollers to maintain the correct gap between the detector and the beam-pipe,
  - modified one of the patch panels (for an easier access to cooling lines),
  - FEA analysis confirmed sagging is small
    - attaching the two North end flanges together to further reduce the overall sag of the detector (by  $\sim x2$ )
  - Talking with others (LBL) to decide on a simplified (shorter) vendor selection procedure
  - Weekly mechanical design meeting, MIT/LANL, LBNL
- Investigating a simplification compared to the ITS design
  - Analysis seemed promising, and price with vendors was checked (looks ok so far)
  - Internal 'review' with CERN (ITS lead engineer) and LBNL engineers, this Friday, 11AM/BNL



# MVTX 8-Stave Telescope Setup

- Successfully readout the system
  - 2-stave + 2-HIC + 4-SingleChip, (4 staves will arrive next week with Alex)
  - 8-RUs + 1-PU + 1-FELIX + 1-GTM + CAEN PS
  - 11m long “final” readout cable
  - Telescope box designed
- Weekly readout meeting
  - Firmware & software
- Test Beam @Fermilab, 4/22-5/4



2 Staves

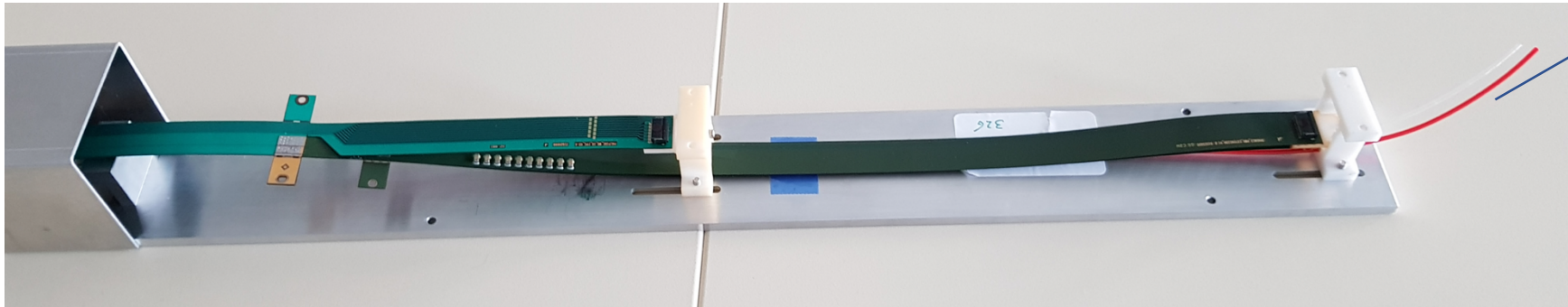
8-SingleChips

2 HICs



# Stave Production at CERN

- Replacement of carbon frame cooling tubes starts next week, 3/9



Cooling tubes:  
55cm -> 70cm

- HIC production in progress
  - Issues with software upgrade last week
  - Rolled back to older version, system is working now
- Production meeting with CERN next Thursday,
  - Cooling tube work
  - HICs & Stave testing
  - Shipping ~10 staves to LBNL, late March or early April