

MVTX Status

Ming Liu

sPHENIX L2 Meeting

02/06/2020

Progress and Status

- Final Design Review 1/29/2020 at BNL
 - Reviewed:
 1. Carbon structure design, test production and vendor selection
 2. Installation & insertion
 3. Power system production
 4. Cooling plate production
 - Received positive report (Draft)
 - Follow up discussions among MVTX groups, carbon structure production in March 2020
- Stave production at CERN
 - Next meeting, ~Feb. 13
 - On-going discussion about stave cooling tube replacement
 - Stave import paperwork in progress, LBNL/UTK/BNL
- MVTX project fund being distributed
 - LANL, LBNL, MIT, UT-Austin

MVTX Final Design Review

Wednesday Jan 29, 2020, 9:00 AM → 5:00 PM US/Eastern
2-84 (BNL Bldg 510)

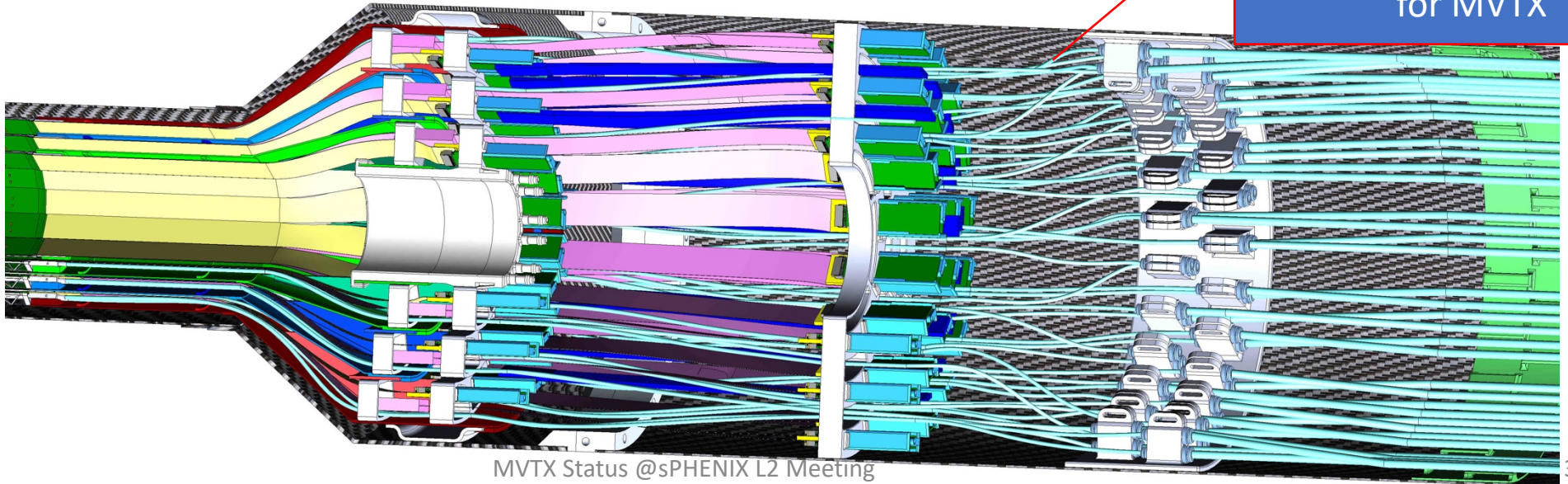
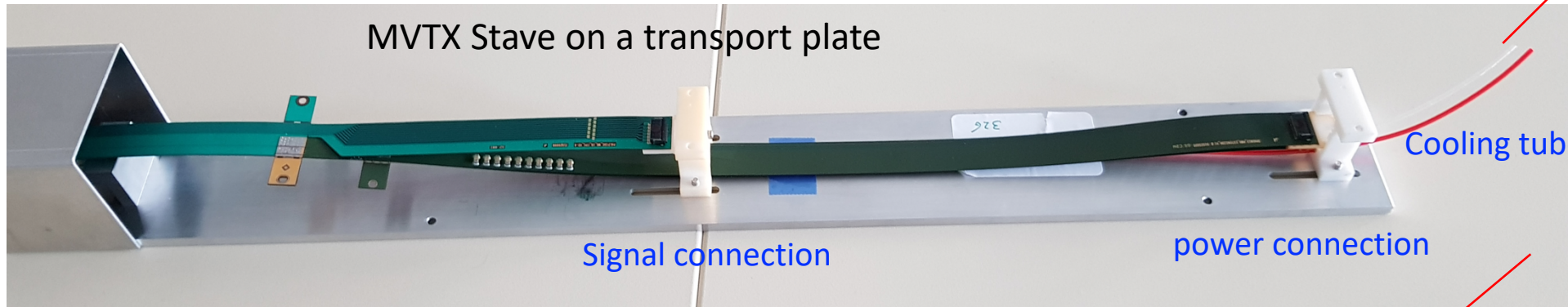
2020JAN29_MVTX... Bluejeans Meeting ...

There are minutes attached to this event. [Show them.](#)

Time	Topic	Speakers	Duration
9:00 AM → 9:10 AM	MVTX Overview	Speakers: Ming Liu (Los Alamos), Grazyna Odyniec (LBNL), camelia mironov (MIT)	10m
9:10 AM → 9:40 AM	MVTX & sPHENIX: a BNL status report	Speaker: Russell Feder (sPHENIX)	30m
9:40 AM → 11:10 AM	Mechanical Design: Cylindrical support structure (CYSS), End Wheels, Service Barrel	Speakers: Jason Bessuille (MIT/Bates), Jim Kelsey (MIT/Bates), Joe dodge (MIT/Bates), Walter Sondheim (Los Alamos National Laboratory)	1h 30m
11:30 AM → 12:30 PM	Lunch		1h
12:30 PM → 1:00 PM	Vendors: credentials, selection, timeline, QA	Speaker: Walter Sondheim (Los Alamos National Laboratory)	30m
1:00 PM → 2:00 PM	Installation and insertion system	Speakers: Jason Bessuille (MIT/Bates), Jim Kelsey (MIT/Bates), Joe Dodge (MIT/Bates), Walter Sondheim (Los Alamos National Laboratory)	1h
2:00 PM → 2:20 PM	Power Unit production readiness	Speakers: Grazyna Odyniec (LBNL), Yuan Mei (LBNL)	20m
2:20 PM → 2:40 PM	ReadoutUnit&PowerUnit cooling plate production readiness	Speaker: Joachim Schambach (University of Texas at Austin)	20m

MVTX Stave Cooling Tube Extension Proposal, 02/04/2020

- The pre-built stave cooling tubes are 5~10cm short to fit the current MVTX service support design.
- We propose to replace all the cooling tubing with 70cm ones (currently ~55cm)
- CERN requests EU\$10K to replace ~100 carbon frames



“Full Readout Chain” MVTX 8-stave Telescope Test Beam Run Planned: April – May at Fermilab

- A complete readout chain 8-stave telescope of the MVTX detector
 - 8-stave + 8-RU + 1-FELIX + 1GTM (mGTM?)
 - MVTX = 6 x (8-stave telescope)
 - RU firmware/software “synced” to a ITS recent version v0.5(11/2019),
 - FELIX firmware update next;
- A new (derived from GTM) mGTM for MVTX to be developed by BNL
 - Provides 2x40.08MHz clock (synced to RHIC) for all FELIX/RU/ALPIDE
 - Same hardware, different firmware
 - All GTM mode-bit and header information available
 - Important for offline event alignment and cross check

JohnH, JoeM, JohnK, Ming at BNL, with Alex, Gerd, Yasser (remotely)