

INTT Status and Schedule

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RIKEN/RBRC

Number of INTT Layers

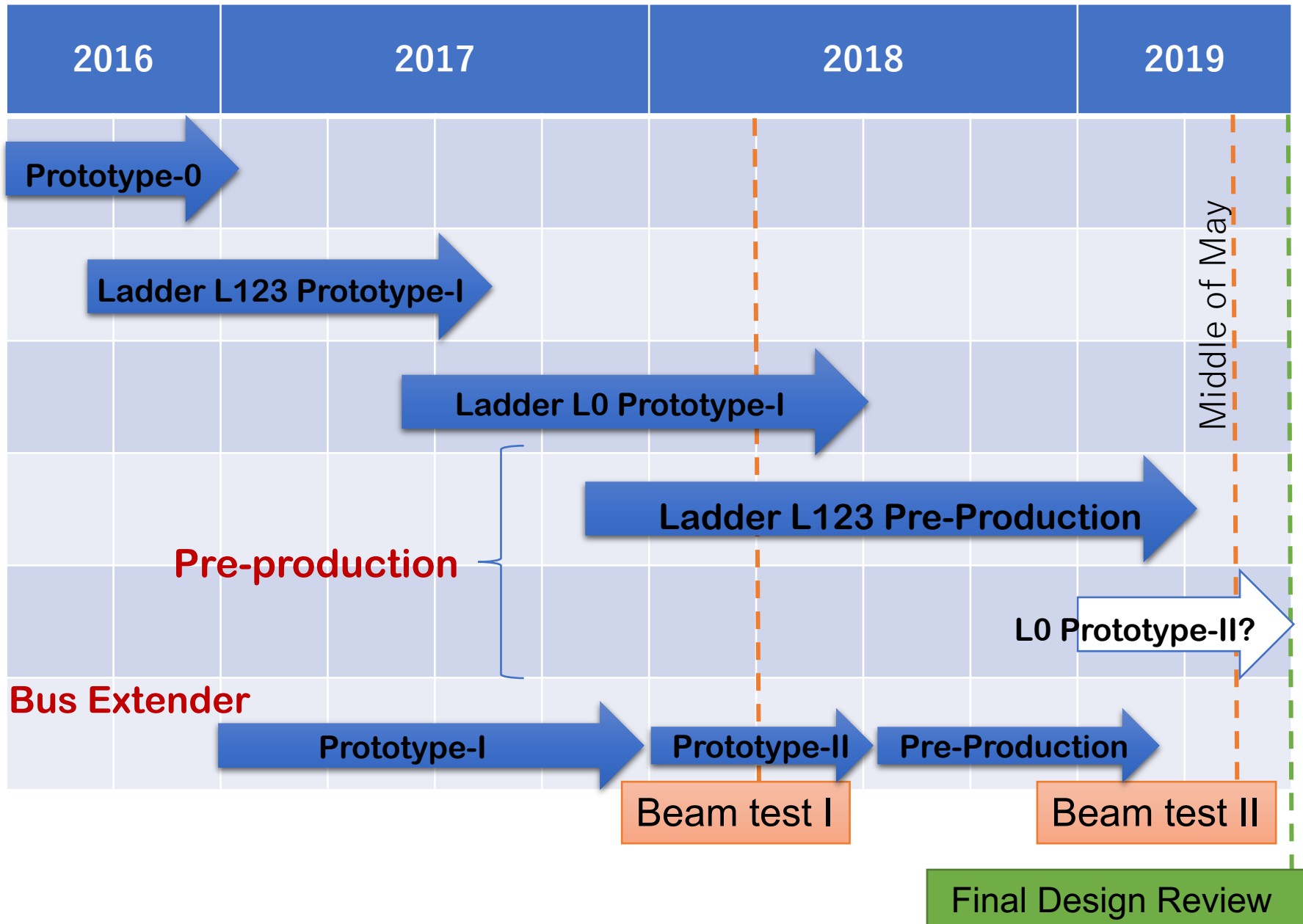
- Decision was made to be 2 layers in the sPHENIX EC meeting on Wednesday following discussion in the sPHENIX collaboration meeting at FSU.
- The radius of 2 layers to be optimized soon.

Layer	Radius [cm]	# of Ladders
1	6	20
2	8	26
3	10	32
4	12	38
Total		116



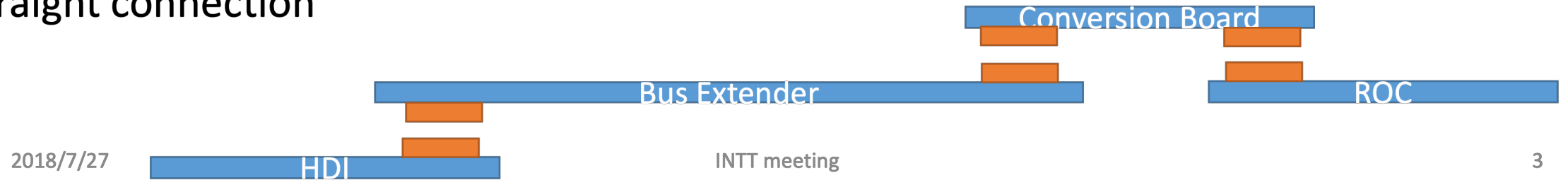
Layer	Radius [cm]	# of Ladders
2	8	26
3	10	32
Total		58

R&D Status and Schedule Update



Towards beam test

Straight connection

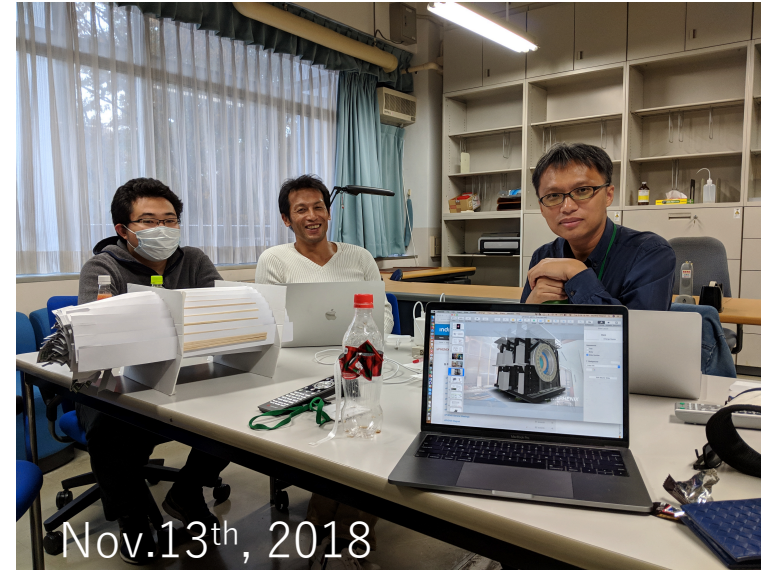


- Silicon
 - 8 sets preproduction versions are delivered in Feb. 2018.
 - HDI
 - Preproduction version to be delivered by the end of Feb.
 - Stave
 - Preproduction version is to be procured.
 - Bus Extender
 - Preproduction manufacture is in progress. Delivery in end of Jan. To be tested in Feb. – March.
 - Conversion Cable
 - Procurement paper works is in progress. To be delivered by the end of March.
- Assembly in March

Chain test in March - April

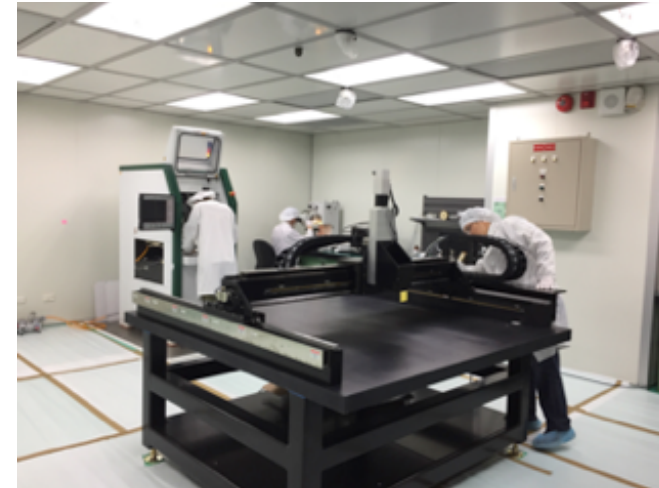
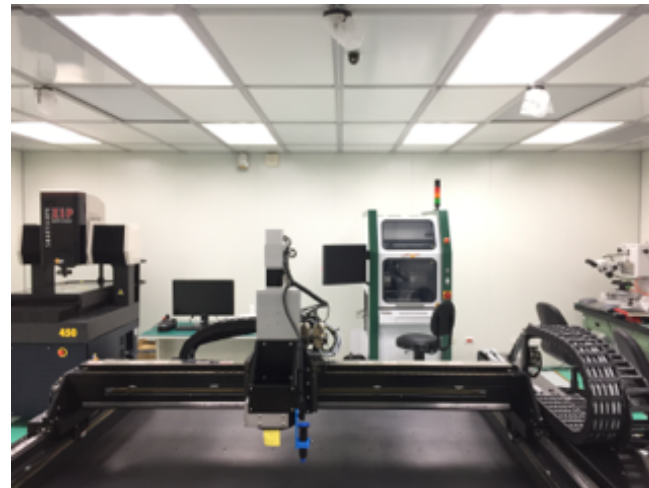
New Collaboration

- Discussion with Prof. Chia-Ming Kuo from NCU/Taiwan for the collaboration in INTT production.
- Abundant experiences in silicon detector assembly/testing.
- Assembly work of silicon shower counters for CMS is ongoing.



Infrastructure of the silicon laboratory in Taiwan

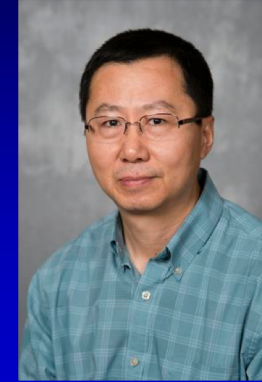
Possible collaboration in QA, testing, assembly, etc in the production phase.



Save the Best for Last : New Collaboration

- Discussion with Prof. Wei Xie from High Energy Group at Purdue University for the collaboration in INTT production
- Prof. Wei submitted proposal to DOE requesting funds to support his group activities in INTT (DOE response expected by January 2019)
- Possibility to have one student/Post-doc in the INTT construction activities.
- INTT work-fest in January/February 2019 at Purdue University

Prof. Wei Xie



Infrastructure of the silicon laboratory in Purdue University

Possible collaboration in QA, testing, assembly, etc... in the production phase.



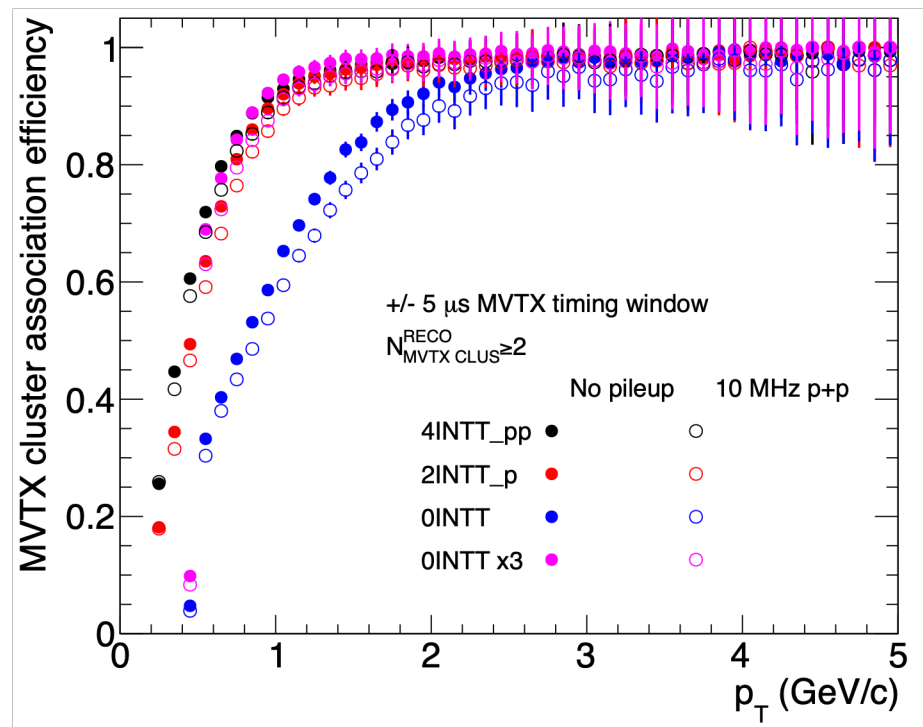
Towards Production

- Silicon
 - Hamamatsu (Japan)
 - 90% Fraction of actual use is under procurement in JFY2018
- FPHX Chip
 - Production (MOSIS) -> Tested (Fermi Lab) completed in JFY2017
 - We have 200% chips available of actual use.
- HDI
 - Hayashi REPIC (Japan)
 - Preproduction design is now under procurement
- Stave
 - ASUKA (Japan)
 - Requested a quote for the preproduction design
 - LBNL (USA)

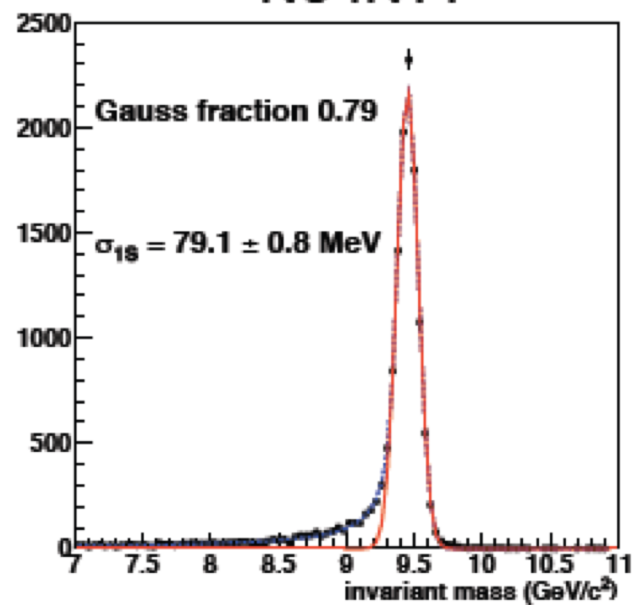
Assembly Location

- BNL
 - Facility
 - Available Technicians, but expensive (\$0.3M/year x 2 years)
- Fermi Lab
 - Facility
 - Available Technicians, less expensive than BNL?
- Japan
 - Facility in REPIC
 - Students
- Perdue
 - Facility
 - Students, Post-doc, technicians? depends on funding request?
- Taiwan
 - Facility
 - Funding?
 - Students, a few technicians?

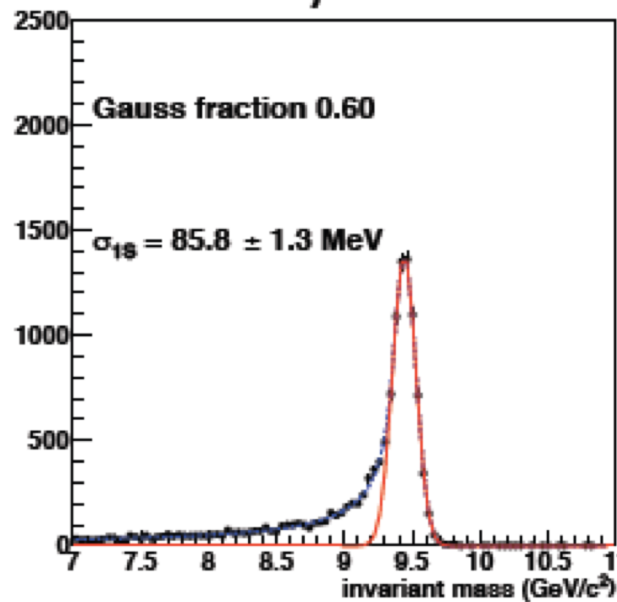
backup



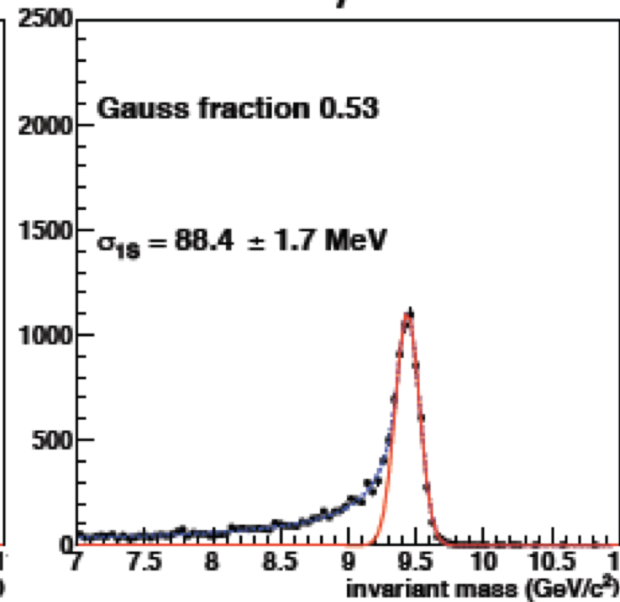
No INTT



2 Layer INTT



3 Layer INTT



4 Layer INTT

