

# Status of UVa GEMs for Bigbite

## ❖ Status of the X-Y layer behind GRINCH

- ❖ Layer with Cu shielding => common mode noise fluctuation, HV and electronics all tested
- ❖ Installation in Bigbite completed

## ❖ Status of the 2 U-V layers in Bigbite main tracker

- ❖ 2 U-V modules already at JLab (layer#1 and Layer#3)
  - ❖ Layer#1 has modified gas distribution system and 2 dead sectors (out of 60)
  - ❖ Layer#3 original gas distribution system, 1 dead sector
  - ❖ Both layers extensively tested with cosmic at UVa

## ❖ 3<sup>rd</sup> U-V layers 98% completed at UVa

- ❖ Need HV divider board to be installed for final HV test
- ❖ Will be moved to JLab next week
- ❖ will replace Layer#1 for BB main tracker

## ❖ 4<sup>th</sup> U-V layers almost completed at UVa (50%)

- ❖ Expected to be ready for Jlab in a monh

# Timeline for U-V GEMs for Bigbite main tracker

**Two layers need to be ready by July 26<sup>th</sup> for installation in BB in the Hall**

## ❖ **Shielding of the chamber is the main cause for installation delay**

- ❖ design for the shielding frame to be completed this week (Xinzhan leading the effort)
- ❖ July 14<sup>th</sup>: Assembly of the shielding frame for first layer need to be completed
- ❖ July 21<sup>st</sup>: Second frame should be completed
- ❖ July 21<sup>st</sup> to 25<sup>th</sup>: Cosmic test performed for both layers ready for installation

## ❖ **Issue with the 3-slot back plane**

- ❖ Paolo would be looking at the issue with 3 slot back-plane
- ❖ Might require modification of the design and production of new boards
- ❖ I don't expect nor do we need this issue to solved before installation of the GEMs in BB
  - ❖ 3-slots back plane could be installed later after the chamber are in BB
  - ❖ Not needed for cosmic test of the layers either

## ❖ **We should be able to be ready for the July 26<sup>t</sup> timeline**

- ❖ But we need to stick to the plan and dedicate all the resources to it

# Status of UVa X-Y GEMs for SBS arm (GEn-RP)

## ❖ Status of the 10 X-Y layer for GEn-RP

- ❖ 7 layers fully assembled and tested
  - ❖ 3 layers in cosmic stand, 3 layer in GEn-RP inline frame and one on table in EEL125
- ❖ 8<sup>th</sup> layer also completed (assembly table in EEL124)
- ❖ Remaining 2 layers: ready for assembly in EEL 126
  - ❖ Layers Alu frames with cables already completed
  - ❖ Waiting for shielding of the modules to be completed before assembly of the layers

## ❖ All 8 assembled layers need the modules shielding work to be performed

- ❖ 2 Require disassembling each layer to shield the modules
- ❖ Design and final prototype of the shielding scheme completed and is being tested
- ❖ Parts for the production of all 40 modules procured (in hand)
  - ❖ Will be good if we can have half of the machining job done at Jlab
  - ❖ And get it started as soon as possible (Bogdan & Brad)
  - ❖ The other half to be done at UVa and started asap

# Timeline for UVa X-Y GEMs for SBS arm (GEn-RP)

## ❖ Machine shop job for the parts of the shielding frames

- ❖ This is the only potential delay at this moment
- ❖ We would need to get this started asap both at Uva and Jlab
- ❖ Once we have the parts, 2 days are enough for a crew of 4 people to completed one full layers => 4 shielding of modules (Anu and Sean)
  - ❖ 3 layers could be completed in a week
    - ❖ This require 3 to 4 people working full time on this task
  - ❖ All 10 layers would be completed and tested by mid August

## ❖ Timeline

- ❖ Week of July 5<sup>th</sup>: Complete the shielding of the modules of layer #9 or 10 in EEL126
  - ❖ This assumes that we have the first batch for 2 layers shielding frames from machine shop
- ❖ The we expect to get the activity going with ~ 2 to 3 layers per week until mid august