Coordinate Detector Status Update

- Scintillator detector with wavelength shifting fibers used as lightguides
- Left/Right split by mirror
- Paddles have angular spread ±17°
- Detector over 3 m tall









Peter Monaghan, SBS Weekly Meeting, 15th March 2023

Detector Configuration



- GEp originally had CDet and Bigbite on beam right
- Detector is fully symmetric
- Will rotate by 180°
- Acceptance matched to being on beam left

GEp Detector Mounting





Peter Monaghan, SBS Weekly Meeting, 15th March 2023

Revised Magnetic Shield



- Earlier magnetic shield tests
- New simulations (thanks to Bogdan)
- New magnetic shield parts required (to be ordered)
- All six modules need to be retrofitted.

Bigbite and CDet Hall Layout

- Gep Kin 3 configuration shown
- Kin 1 and Kin 2 move closer to target
- Potential interference at pivot in Kin 1 to be fixed.





Equipment Layout in the Hall



- With one set of repeaters
- Cables up to (less than) 30 m



Modular Low Voltage Power Supply



- Using Wiener LV supplies (not Acopian as shown)
- Equipment in-hand with Fast Electronics Group

CHRISTOPHER NEWPORT

IVERSITY

DAQ Upgrade to VETROC System



- Replace 9 Fastbus crates with 1 VXS crate
- Supports higher data rates of ~ 200 MB/s
- Purchase of new VXS crate and 13 modules (192 channels)
- Initial tests some time ago (staff member left)
- Need fresh test of system
- Need cabling requirements and cables made



Summary

- Thank you to Robin Wines and Derek Henley for design work
- Parts need to be ordered
- Assembly/Installation plan required
 - Anticipate moving modules to hall and installing on frame and stand there
 - The seems of inner modules have to be made light-tight
- Commissioning final module in test lab onboarding two CNU students to project
 - Angelo Rosso (soon to be Masters student); Michael Lowry (junior)
- Further development of VETROC setup required need help!
 - cables and connectors required
- Low voltage power system requires assembly
- Need HV cables/connectors from CAEN crates to modules

