# Updates

- Global Design / Integration WG - https://indico.bnl.gov/event/17076/
- Tracking WG - https://indico.bnl.gov/event/17080/
- Lab and R&D,
- Geometry implementation in simulations,
- Track finding development,
- Upcoming simulation campaign - (https://indico.bnl.gov/event/16028/)
- Studies of thresholds - https://indico.bnl.gov/event/15858/
- Electron studies - https://drive.google.com/file/d/1pLGcEURv4jlKpxAUmH9gdzdtMQMcAIxw/view
- AOB

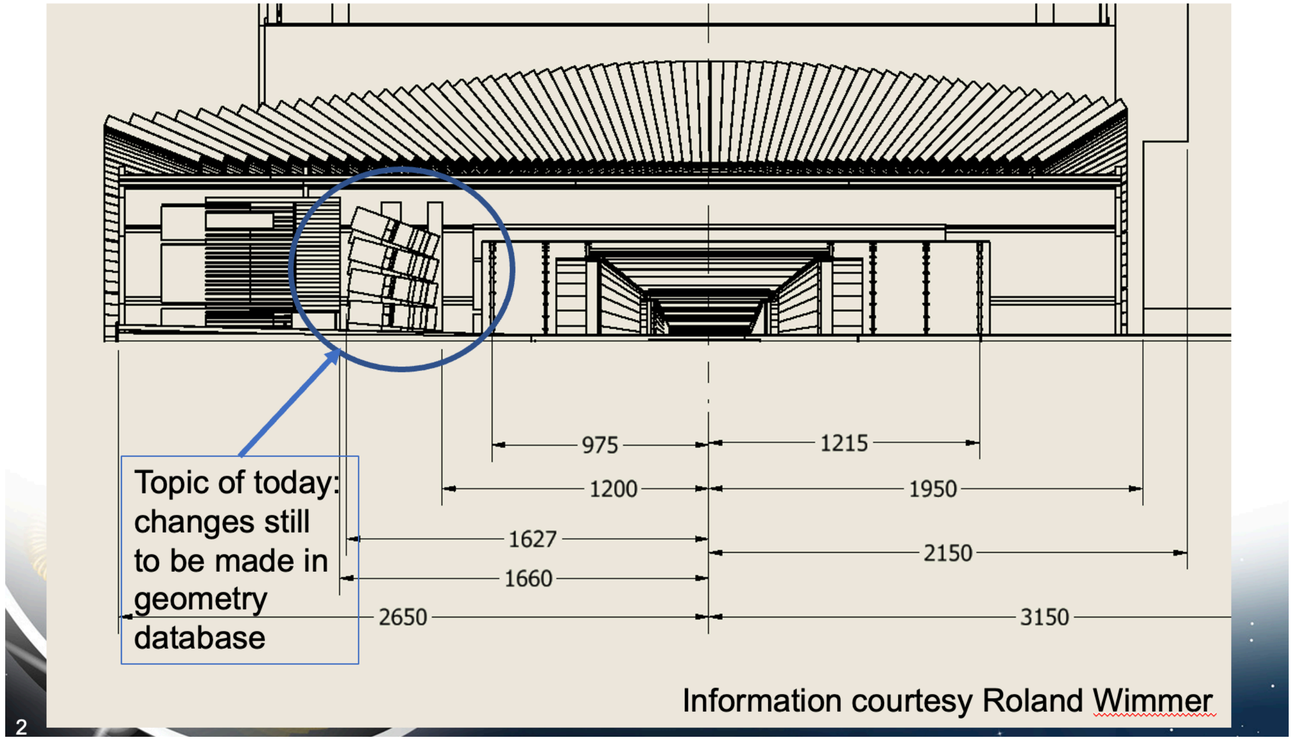
# Global Design and Integration WG

## Backward Detector Integration

What we need to watch out for

- ❑ Do we have enough space for the detector, its readout and services
- ❑ Does a detector, i.e. its material, impact the performance of other ones

Overall integration model that we try to keep consistent with the geometry database




Slide courtesy Rolf Ent

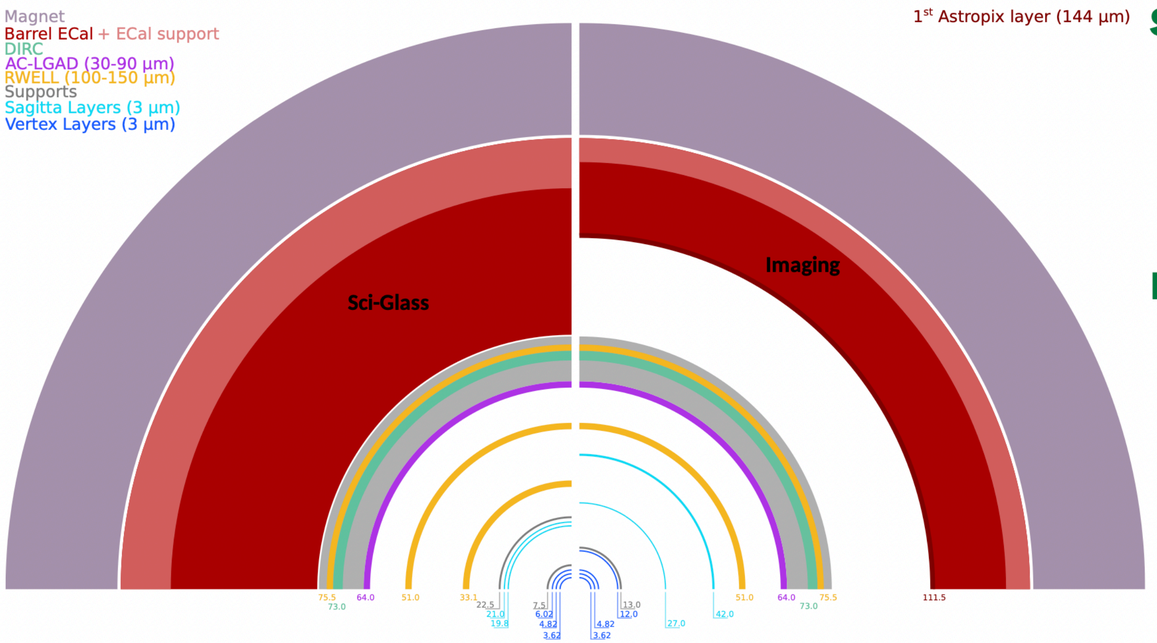
Tracking concerns here are 1) the decreased lever arm compared to agreed-on WG configuration of August 29, and 2) bifurcation of PID configurations between mRICH/pfRICH and with/without ToF leaving a range for min(z) between -1.35m and -0.85m (!)

# Tracking WG - joint with Calorimetry

OAK RIDGE National Laboratory

## Detailed View of Detector Locations: Option A

EPIC Electron Proton and Ion Collider EXPERIMENT




**Sci-Glass:**

- Spatial arrangement fixed, no IHCAL possible
- Only possible change tracking/PID configuration

**Imaging:**

- Could fix ECal (total 30 cm $\sim 20X/X_0$) to magnet albeit more cost extensive
- Would leave more room for tracking/PID configuration changes

Slide courtesy Friederike Bock

F. Bock (ORNL) | EPIC detector | September 15, 2022 | 2 / 3

Is the space afforded by the imaging eCal in option A a something we want to engage with for tracking optimization?

Option B in this presentation uses the space gained from an imaging eal for an inner hCal