

# Digitization for Roman Pots, OMD, and B0

- **Roman Pots + OMD (AC-LGADs)**

- Clustered energy deposit into single hits assuming 500um pixels is sufficient.
- Could get more-advanced and mimic signal sharing between adjacent pixels, but not a requirement for us.
- Need timing information with applied resolution for timing (~35ps).

- **B0 tracking**

- MAPS/ITS3 layers can use the same clustering for digitized hits used elsewhere in ePIC - no special requirements.
- AC-LGAD layer has same requirements as RP/OMD, but could benefit from signal sharing when we get to the point of adding it (not strictly needed, but could help).

- **B0 EMCAL**

- Need to simulated light collection from PbWO4 crystals.
- Also needed for electron-endcap, our needs are not any different, but our background considerations will likely be very different.