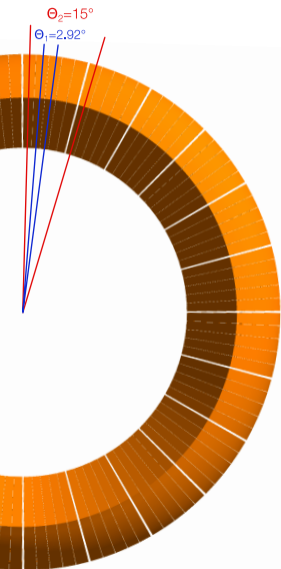


Barrel ECal CAD-based geometry in Fun4All

EPIC Calo Meeting
July 31, 2022

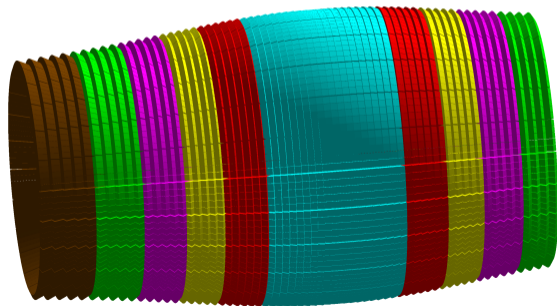
Nicolas Schmidt

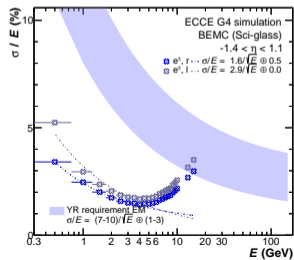
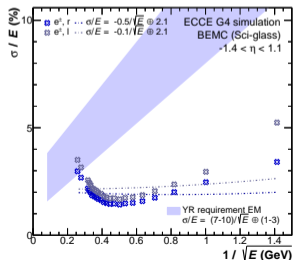
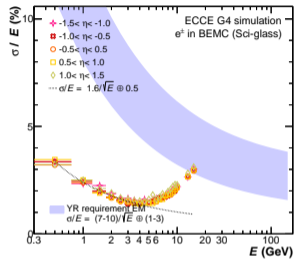
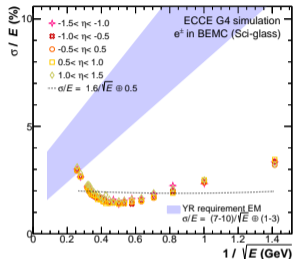
General overview of geometry



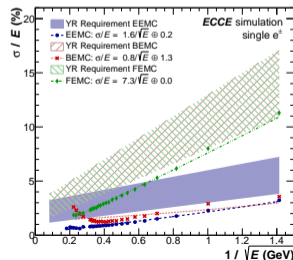
- 120 towers in φ and 66 in η
→ 7920 towers in total
- 24 supermodules (SM) → placed every 15°
- 5 towers per SM → placed every 2.92°
- 6 tower families in η (different colors below)
→ each with $4 \times 4\text{cm}^2$ inner face and 45.5cm length
→ different outer face depending on family (up to $\approx 6 \times 6\text{cm}^2$)

- gdml-based geometry from CAD model provided by Joshua Crafts
→ easy Fun4All geometry update with new files





- Performance similar (even slightly better) as in proposal
→ air-gaps instead of carbon frames
- Resolution worsens above 5 GeV
- No η dependence on resolution



Performance of updated BEMC

