

Fwd EMC Alternative **Geometries**

SuperB Collaboration Meeting
EMC Session

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London

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Alterantive Fwd Endcap Geometries

✓ Geometries

- GDML files with BGO and PureCsI ready
 - BGO : identical to LYSO
 - CsI : identical to BaBar endcap (volumes name changed to be used in Bruno)

✓ Bruno

- Code changes to run different geometries identified
- Production performed with packaged Bruno
 - Radiative Bhabha

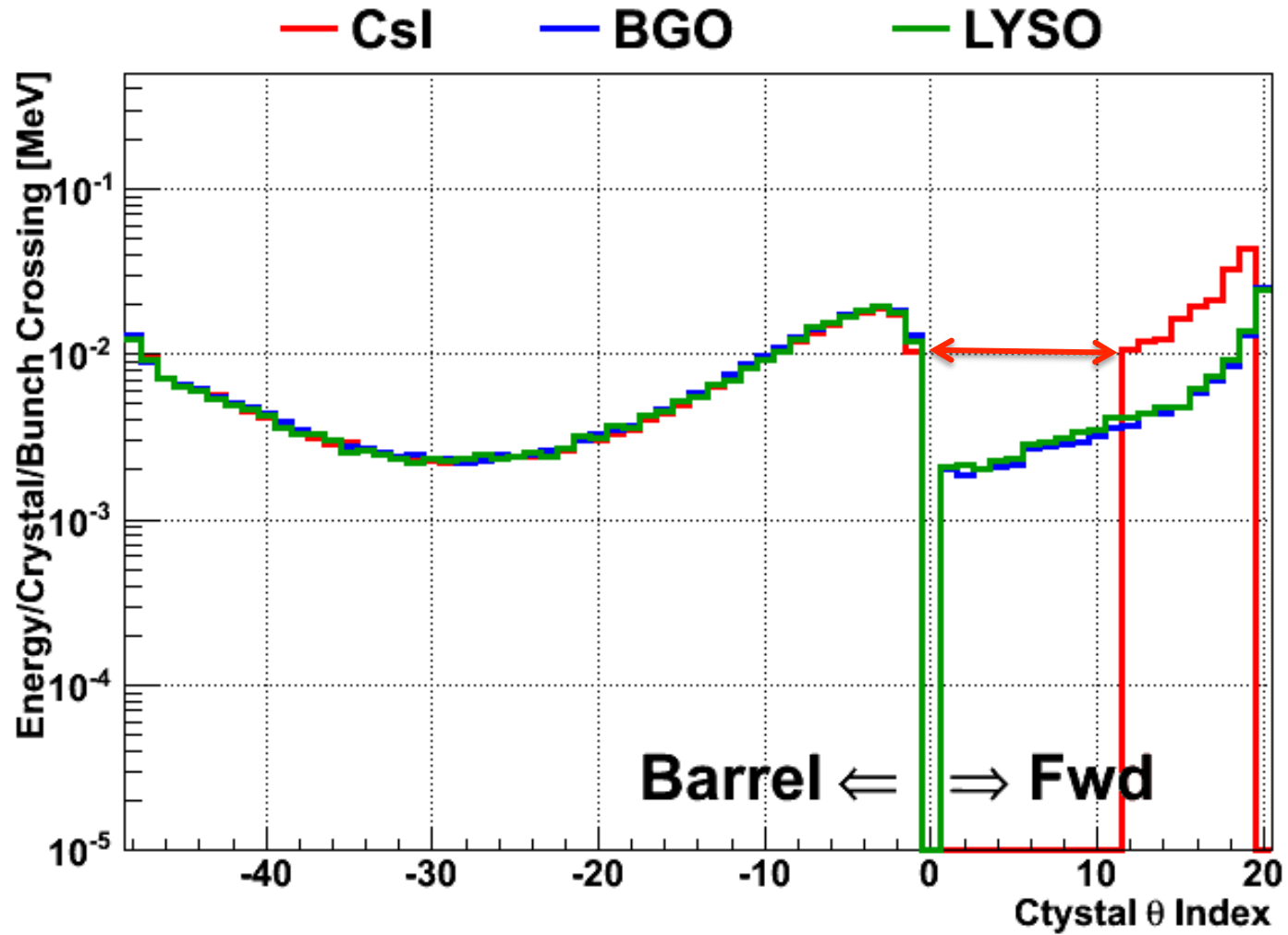
✓ Analysis

- Production completed on Friday
- Preliminary comparison

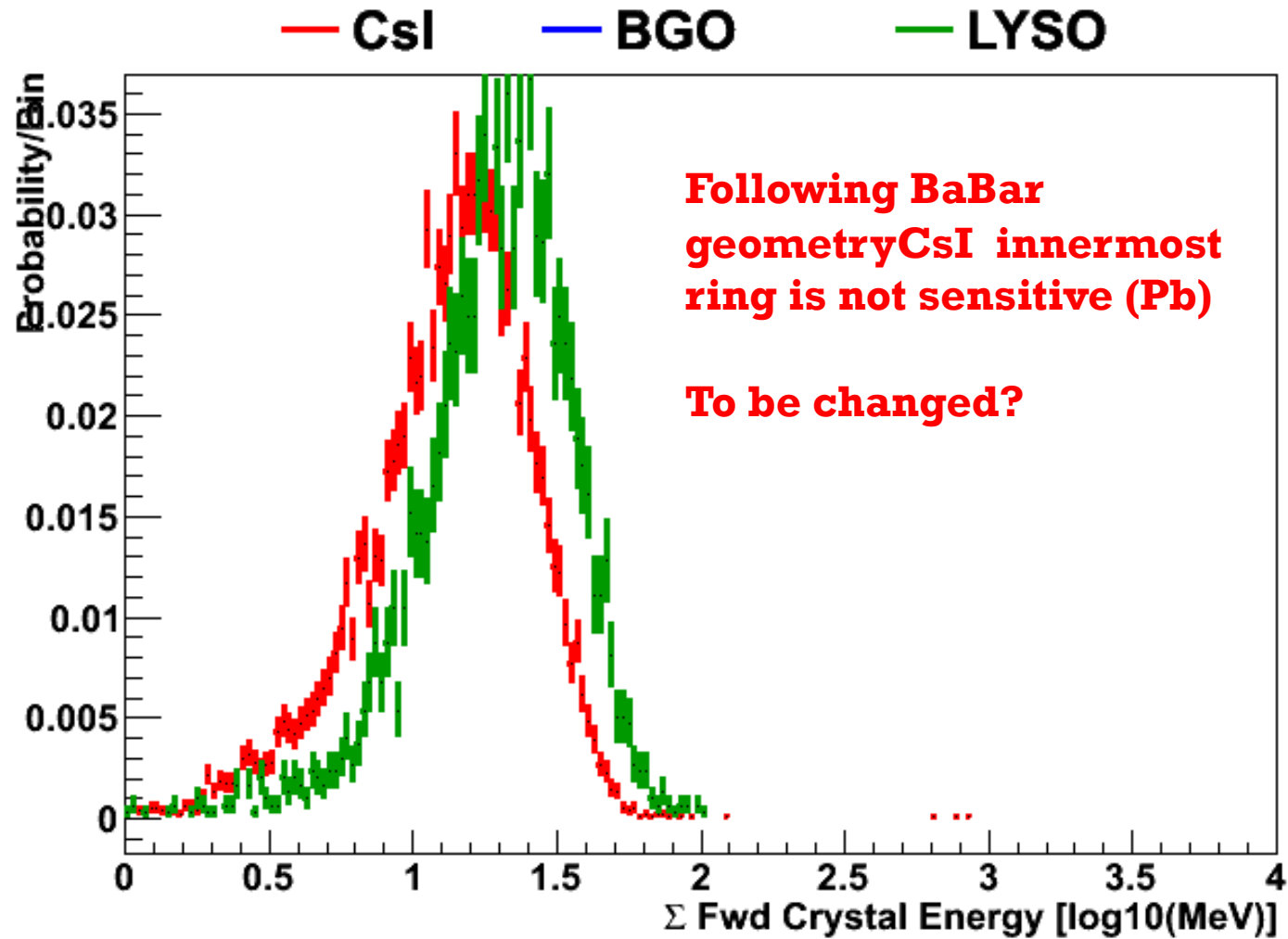
✓ Final study aim

- Energy resolution with background comparison

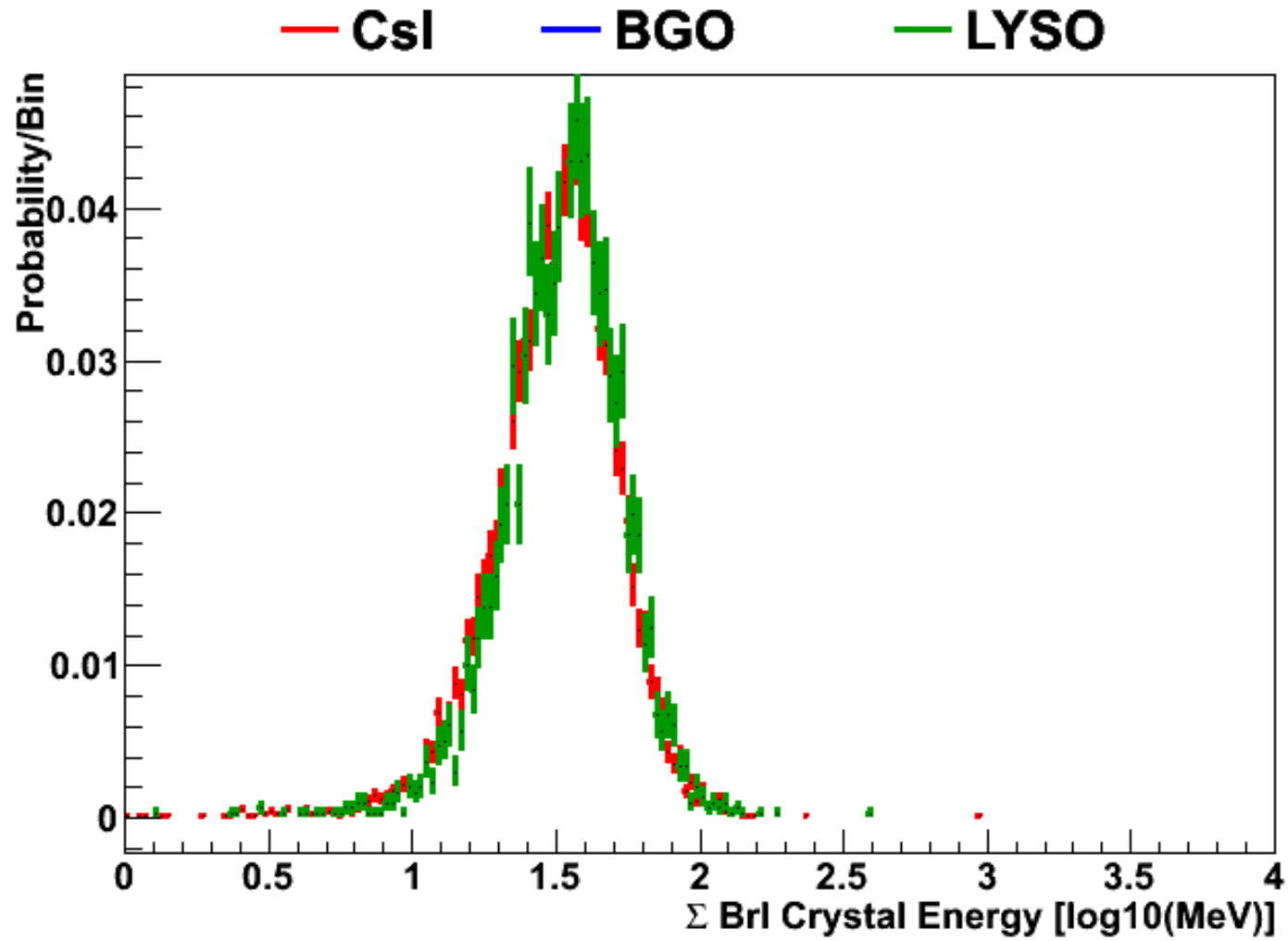
Crystal Energy vs Theta



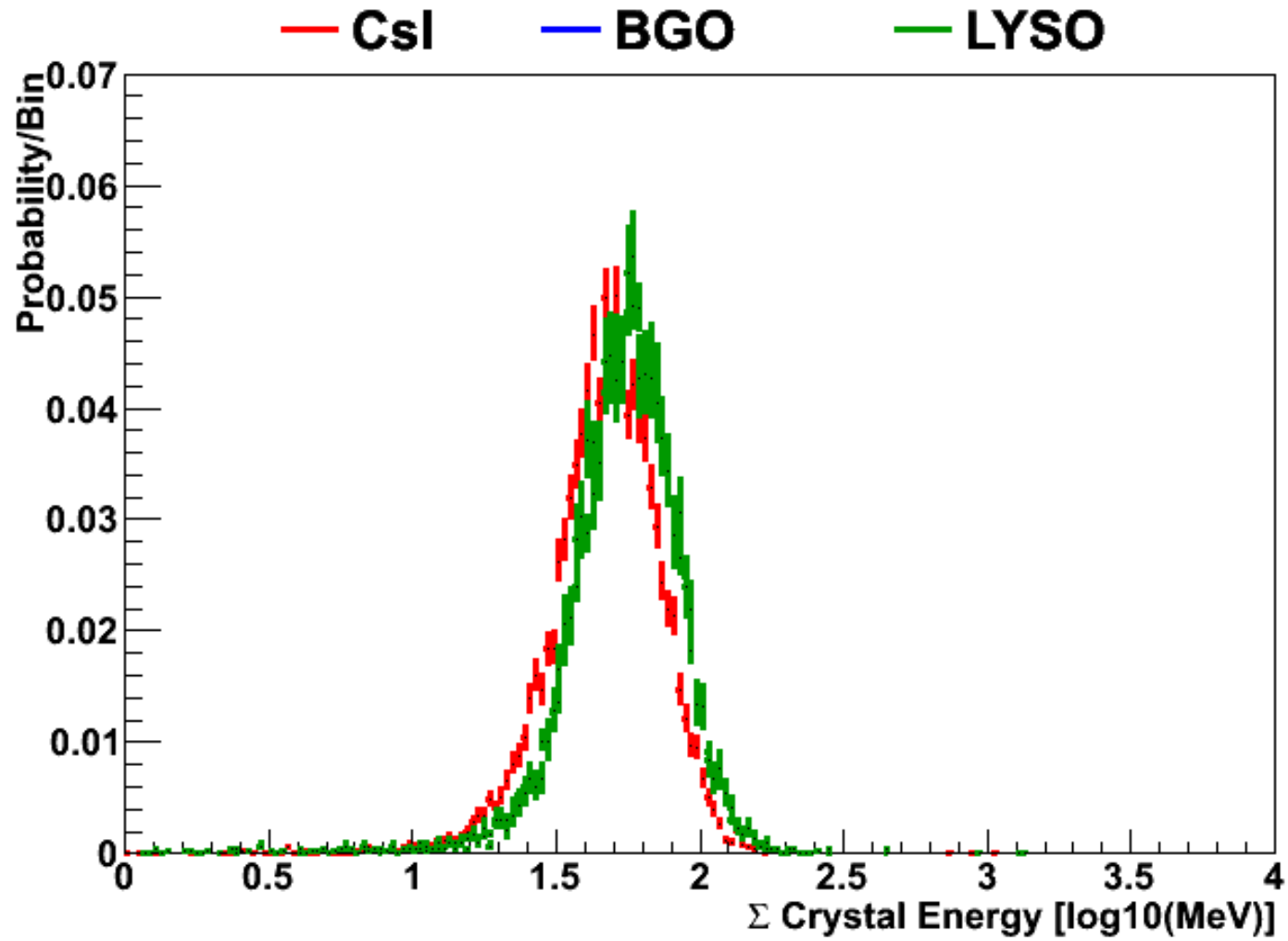
Fwd Endcap Energy



Barrel Energy



Barrel+Fwd Energy



Conclusions and Outlook

- Preliminary Checks OK
- Energy resolution study will be performed in the next few days
- Additional geometries
 - PWO (very similar or identical to LYSO)
 - Other more complicated geometry