Cable issues at the detector for HCAL

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- Scheme of EUDET
- Direction of ILD
 - GND
 - power distribution
 - signal individual/daisy-chain

Condition as on EUDET



Cabling EUDET

EUDET-prototype: list for 130mm x 140mm

Sorting with CoralDraw easy, Reality will be much worse ∞FRNC-cables are normally thicker

FRNC-cables are normally thicker Most is flame resistant outer jackets What is need for ILD? + GND-defining ... More space! - 100A through LDA or compacter power cables - daisy-chaining signal would safe some space. Can ILD live with more (or that) space?

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GND in half octant –ILD





My guess: Space for DC/DC (magnet!) not less than power-bars



Summarizing Comments

Getting a concept conclusive for all crafts: Need to get basics from all Need in the early stage basic inclusions in the design

- Concept for EUDET:

Is cable count adequate for scaling to ILD?

- Power/GND:

Bar-like (thick wires) gets better EMI, less space

- Signal: The star-like concept is not the only solution Daisy chain like reduces space requirements

Other comment: Open issue?

..... Is temperature of cooling water enough to

REGULATE stack temperature for SiPM?

CMS plans Peltier: Other solution additional local heaters

.... Every addition: More power in DIF area