
HFCC Calorimetry 2025 R&D Projects

Bob Hirosky
Michael Begel

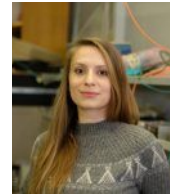
19-Dec-2024



L3 coordination (Calorimetry)

Calorimeter (us-hfcc-calorimetry@cern.ch)

- Dual Readout: Grace Cummings
- Nobel Liquid: Erich Varnes
- Si-W: Jim Brau
- Tile-Scint: Vishnu Zutshi



US HEP has demonstrated expertise and leadership across multiple calorimeter technologies, e.g.

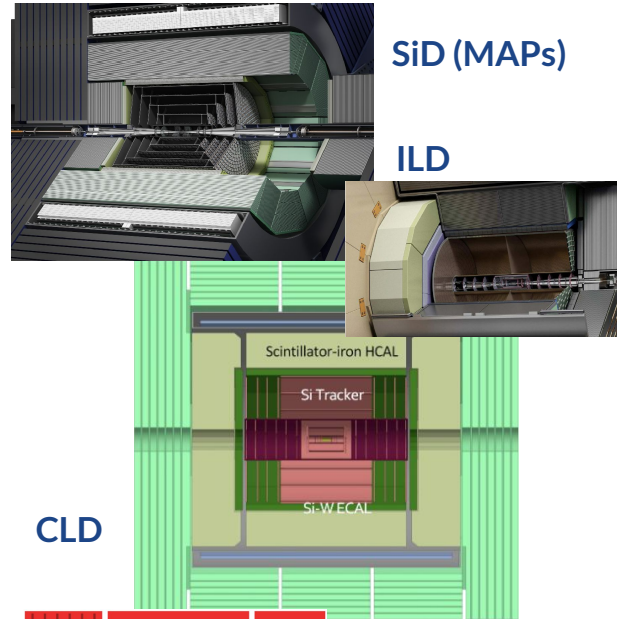
- **DR Calorimetry**
 - Calvision, DREAM/RD52
- **Noble Liquid**
 - ATLAS ECAL, D0
- **Silicon-Tungsten**
 - CMS HGCAL, CALICE
- **Tile-Scint**
 - ATLAS Tile CAL, CMS HCAL/HGCAL

Today

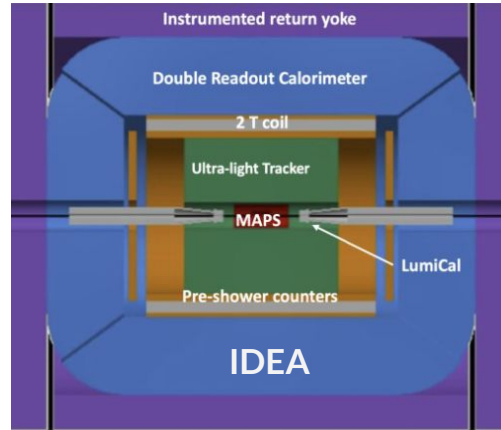
- Review interests in HF calorimetry projects from US community
- First attempts at drafting (eg bullet points) for US input to detector development projects for input to ESG

Proto detector concepts

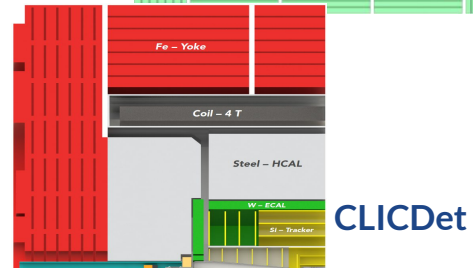
ECAL: Si/W - HCAL: Sci Tile




ECAL: LAr/LKr with Pb/W absorber
HCAL: CALICE- or TileCal-like



ECAL: dual-readout crystal
HCAL: Copper with S/C fiber



Agenda:

Intro 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Bob Hirosky et al.</i> 10:45 - 10:50
RDC Overview 53/1-1350-A/B - Trinity-A/B, SLAC	<i>marina artuso</i> 10:50 - 11:05
DRD6 Overview - Marc-Andre 53/1-1350-A/B - Trinity-A/B, SLAC	11:05 - 11:20
Dual Readout 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Grace Cummings</i> 11:20 - 11:30
TB Sim 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Sarah Eno</i>  11:30 - 11:45
Fiber Calo 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Christopher Madrid</i> 11:45 - 12:10
Dual Readout Full Simulation 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Wonyong Chung</i> 12:10 - 12:25
SiW ECal 53/1-1350-A/B - Trinity-A/B, SLAC	<i>James Brau</i> 14:00 - 14:20
Lumi Mon 53/1-1350-A/B - Trinity-A/B, SLAC	<i>Graham Wilson</i> 14:20 - 14:35
Time HCal - Vishnu 53/1-1350-A/B - Trinity-A/B, SLAC	14:35 - 14:50
LAr Block - Erich 53/1-1350-A/B - Trinity-A/B, SLAC	14:50 - 15:15
TB/Computing chat 53/1-1350-A/B - Trinity-A/B, SLAC	15:15 - 15:30