

Frank Simon Max-Planck-Institute for Physics

CALICE Collaboration Meeting, Shanghai, China, September 2018



Update: September 21 morning

CALICE Review by ECFA R&D Panel

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Max-Planck-Institut für Physik (Werner-Heisenberg-Institut)





Agenda Outline

Global View

Location: DESY, Hamburg, Germany

Tuesday, November 6:

- 8:30 9:00 Closed Session for Panel
- 9:00 12:45 Talks by CALICE: Introduction & Overview; Technical Developments • 14:00 - 16:15 Talks by CALICE: Performance & Analysis; Outlook
- 16:15 17:15 Closed Session for Panel
- 17:15 18:45 First Feedback, Follow-up Questions and Discussion
- Dinner restricted participation, details to be worked out

Wednesday, November 7:

8:00 - 13:00 Closed Session for Panel, Closeout - selected CALICE members available for questions







Introduction (Session I)

Introduction of CALICE - time: 25 + 25

Content:

- Motivation and history
- Evolution of CALICE activities and scope up to today
 - Validation of concept with physics prototypes
 - Proof of technological feasibility with technological prototypes
 - Understanding hadronic showers
- Activities outside of the LC scope
- The Structure of CALICE
- Overview over presentations of the day



Speaker [tbc]:





Technical Developments (Session II)

The talks in this session focus on the technological developments and low-level results

Electronics & DAQ overview - time: 20 + 20

- Brief discussion of chip developments
- Commonalities in DAQ approaches

SiW ECAL developments - time: 15 + 15

- Brief intro and recap of physics prototype
- Status and plans of technological prototype
- Results from test beam (low level performance, up to MIPs)
- Status / strategy of detector simulation



Speaker [tbc]: Christophe de la Taille or Taikan Suehara

Note: Christophe will land in HAM at 9:00 move talk later?

Speaker [tbc]: Vincent Boudry





Technical Developments (Session II)

- Speaker [tbc]: Imad Laktineh or Gerald Grenier or MaryCruz Fouz Speaker [tbc]: Brief intro and recap of AHCAL physics prototypes Katja Krüger or Felix Sefkow Speaker [tbc]: Wataru Ootani or Tohru Takeshita Brief intro and recap of ScECAL physics prototypes

Analog HCAL developments - time: 15 + 15

- The talks in this session focus on the technological developments and low-level results Gaseous HCAL developments - Speaker TBD - time: 15 + 15 Brief intro and recap of DHCAL physics prototype Status and plans of SDHCAL technological prototype • Results from test beam (low level performance, up to MIPs) Status / strategy of detector simulation \bullet Status and plans of technological prototype • Results from test beam (low level performance, up to MIPs) Scintillator ECAL developments - time: 10 + 10

- Status / strategy of detector simulation

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Performance & Analysis (Session III)

The talks in this session focus on high level performance parameters (energy reconstruction & resolution, comparison to simulations), shower studies - presenting different technologies in common talks

Performance of CALICE Calorimeters - time: 30 + 30

- Analysis framework, requirements, evolution
- Energy reconstruction, energy resolution, shower separation
- Simulation of performance, understanding of different reconstruction techniques
- Projections for full detector systems

Understanding Hadronic Showers with CALICE Data - time: 15 + 15

• Shower studies, GEANT4 comparisons



Speaker [tbc]: Roman Pöschl

Speaker [tbc]: Marina Chadeeva







Outlook (Session IV)

Outlook - time: 25 + 25

- CALICE technologies in other applications with participation of CALICE members
- CALICE publication status and plans
- Near-future plans
- Possibilities for the long-term evolution of CALICE

Exploring to split into two talks, with "other applications" as a separate talk. (Time division in that scenario \sim :10+10, 15+15

Possible speaker (TBC): Thomas Peitzmann



Speaker: Frank Simon





Material for Review

Available well in time before the review

- Input to be provided by CALICE for the review:
 - before the review



• A short executive summary document, which also contains pointers to key references and presentations to help panel members not familiar with CALICE to get up to speed. Here we should aim for ~ 10 pages, and avoid to go longer than 20 pages or so. This document should be available at least two weeks

Replace with background material collection?

• Presentations on all major technologies, analysis, publications, future plans. *The final (e.g. frozen)* version of the slides should be made available to the panel at least one week before the review



