

ECFA Detector R&D Roadmap Implementation DRD Calorimetry

Optical Calorimetry

E. Auffray-Hillemanns, G.Gaudio

Optical Calorimeter Session

14:30 → 15:30	Optical Calorimeters: Scintillating based, sampling and homogeneous calorimeters Conveners: Etiennette Auffray Hillemanns (CERN) , Gabriella Gaudio (Dipartimento di Fisica Nucleare e Teorica) , Gabriella Gaudio (INFN-Pavia)	📄
14:30	Introduction Speakers: Etiennette Auffray Hillemanns (CERN) , Gabriella Gaudio (INFN-Pavia)	🕒 10m 📄
14:40	Homogeneous Calorimeters Speaker: Marco Toliman Lucchini (Università & INFN, Milano-Bicocca (IT))	🕒 15m 📄
15:05	Picosecond Scintillating sampling electromagnetic calorimeters Speaker: Philipp Roloff (CERN)	🕒 15m 📄
15:30 → 15:50	Coffee Break	🕒 20m
15:50 → 17:15	Optical Calorimeters: Scintillating based, sampling and homogeneous calorimeters Conveners: Etiennette Auffray Hillemanns (CERN) , Gabriella Gaudio (INFN-Pavia) , Gabriella Gaudio (Dipartimento di Fisica Nucleare e Teorica)	📄
15:50	Tile Calorimeters Speaker: Henric Wilkens (CERN)	🕒 15m 📄
16:15	Dual Readout Fiber Calorimeters Speaker: Romualdo Santoro (Insubria University and INFN - MI)	🕒 15m 📄
16:40	Recent development on scintillators Speaker: Etiennette Auffray Hillemanns (CERN)	🕒 15m 📄
17:05	Discussion on Optical Calorimeters	🕒 10m 📄

“Optical calorimeter” =

any calorimeter in which signals mainly come from collection of photons produced in the particle interaction.

- Synergy/overlap with other calorimeter types
- Synergy with photodetector and readout electronics development needed

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Session organized following two main directions:

- Concept of different techniques

◆ homogeneous

◆ sampling (fibre and tile)

◆ “double” sampling (DR)

- Development of scintillation materials to improve detector performance

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Goal of today meeting:

Attempt to collect the overview of requested R&D needed in the ~5 next years in various technologies

- ◆ It may be not exhaustive
- ◆ It is not all settle down
- ◆ Large margin for discussion after each talk - your input is fundamental