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# (POS-9) Event reconstruction for the ARGO detector

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Dark matter experiments are dedicated to unravel the mysteries of the universe's dark abundance. ARGO represents an advancement in the field of liquid argon detectors for dark matter search, building upon the achievements of current detectors such as DarkSide20k and DEAP-3600.

For this presentation, we consider a single-phase cylindical detector measuring 7 meters in diameter and 7 meters in height, equipped with silicon photomultipliers (SiPMs) for signal detection. The strategic placement of these SiPMs, whether internal or external to the detector vessel, depends on factors such as background radiation levels and position reconstruction accuracy.

This presentation will introduce several event reconstruction algorithms based on the charge and time distributions of SiPM signals within the ARGO detector. These algorithms play a crucial role in optimizing SiPM configurations and mitigating background in the detector.

## Keyword-1

Dark matter, ARGO detector

## Keyword-2

Event reconstruction

## Keyword-3

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