

# Warm electronics requirements.

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# Introduction

- Baseline electronics already defined based on Mu2e electronics.
- The FEB relies on octal commercial ultrasound ADC chips (12 bit, 80 MS/s).
- **DAPHNE** (Detector electronics for Acquiring PHotons from NEutrinos) needs to be redesigned from Mu2e electronics.
- A general three steps plan is envisaged: (1) redesigning the board to be compatible with the SiPM ganging scheme and the output data rates, (2) write specific FPGA code to handle the data volumes and rates expected in DUNE, (3) produce prototypes and test them in bench top labs.
- Definition of the ADC characteristics
- Determination of data rate requirements for DUNE SP PD system.

# Today's agenda

Wednesday, 15 May 2019

10:00 - 10:10

## Introduction

Convener: Dr. Deywis Moreno Lopez (UAN)

10:10 - 10:30

## Physics and Simul. 20'

Speaker: Dr. Alex Himmel (Fermilab)

Material: **Slides** 

10:30 - 10:45

## Thresholds Studies 15'

Speaker: Dr. Biswaranjan Behera (Colorado State University)

Material: **Slides** 

10:45 - 11:00

## Electronics requirements 15'

Speaker: Dr. Javier Castano (UAN)

11:00 - 11:20

## Cold Electronics and Warm Elec.Requirements 20'

Speaker: Dr. Gustavo Cancelo (fermilab)

Material: **Slides** 