Analysis of CERN2018 data

- **Data**
  - **RAW data**
  - **List of runs**
    - Energy, Stat, Rate (vs t), Contamination, Quality, specific cuts
    - csv file on EOS
  - **Commissionning**
    - ☐ To be recovered...
  - **Reconstruction**
    - **code** /eos/project/s/siw-ecal/TB2018-09/converte
    - /eos/project/s/siw-ecal/TB2018-09/Common/ECAL
    - Muon runs
    - Pions runs
    - **Missing**
      - Electron runs
      - Last muon runs for calibration of the 3-4 FeV13s not calibrated during the standalone runs
- **Analyses**
  - **decription of full prototype**
    - Wafers types
  - **Muons**
  - **Electrons**
    - Clean-up data
    - Reconstrcution checks
    - **Energy scan 10, 20, 40, 80, 150 GeV**
      - 10 kHz ?
      - beams spot σ ~ 2-5 cm
      - **Shower profiles**
        - 2D: z, r
        - 3DD
        - Plots
          - Long Profiles
            - X0 in front
            - Tmax
            - ß
          - Lat profile
            - R_M
            - Response wrt prof_th
            - Response vs position
              - Size of dead region
          - Linearity vs E
    - **Linearity vs Freq**
      - Freqscan(1,5day),80GeV,10Hz-10kHz
    - Square events rates
  - **org**
    - Twiki
    - 1 page per results ?
  - **Pions**
    - **Energy scan**
      - Wed 3rd - Wed 10: 7 days of pions(+ or -) energy scan (10-150 GeV), low freq (10-20 Hz), beams spot σ ~ 2-5 cm - Pi- (no p contamination) and Pi+ (p contam.)
- **Common runs**
  - Format ?
  - **Muons**
    - **Tracks from ECAL to SDHCAL**
      - Alignment
  - **Pions**
    - **Tracks from ECAL to SDHCAL**
      - Alignment
    - Shower shapes
    - Interaction in the ECAL
  - **Electrons** ?
    - Containement ?
- **Reconstruction SW**
  - RAW2ROOT
  - Analysis framework Adriár
  - R decoding (VBa) + Fitting (Sacha)
  - **Jupyter**
    - python + numpy + mathplotlib
- **Simulations**
  - What is needed ?
  - 2012 mod
  - 2015
  - **ILD**
    - **3 sections, 4 blocks**
      - 3 FEV11
      - 1 FEV13 320µm
      - 3 FEV13 650µm
      - 3 FEV11