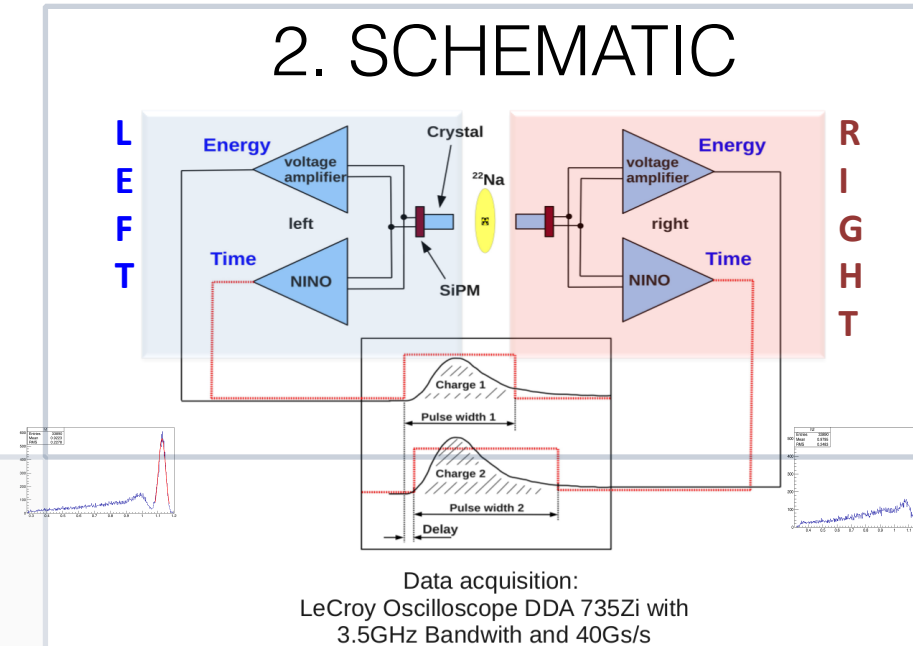


State of the art silicon photomultipliers with LSO: Ce codoped Ca scintillators achieve 85ps Coincidence Time Resolution for PET



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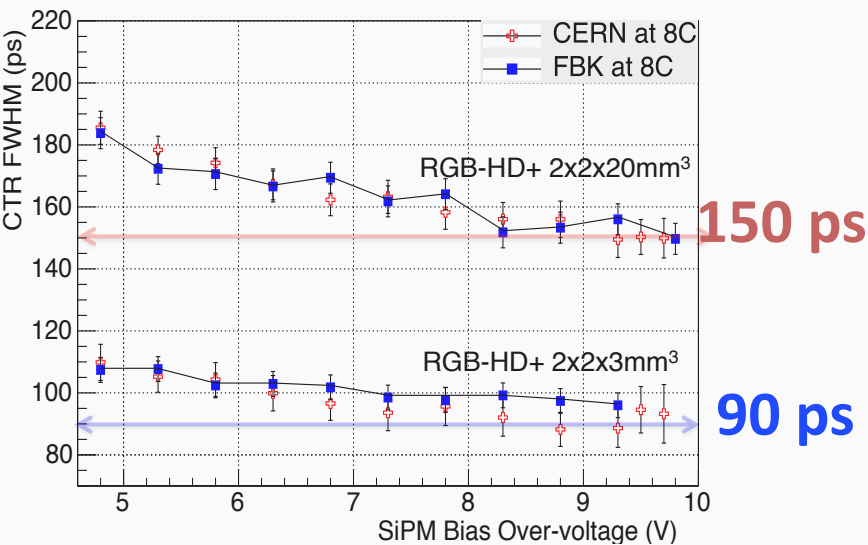
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3. RESULTS

RGB-HD SiPM + LSO Ce: Ca

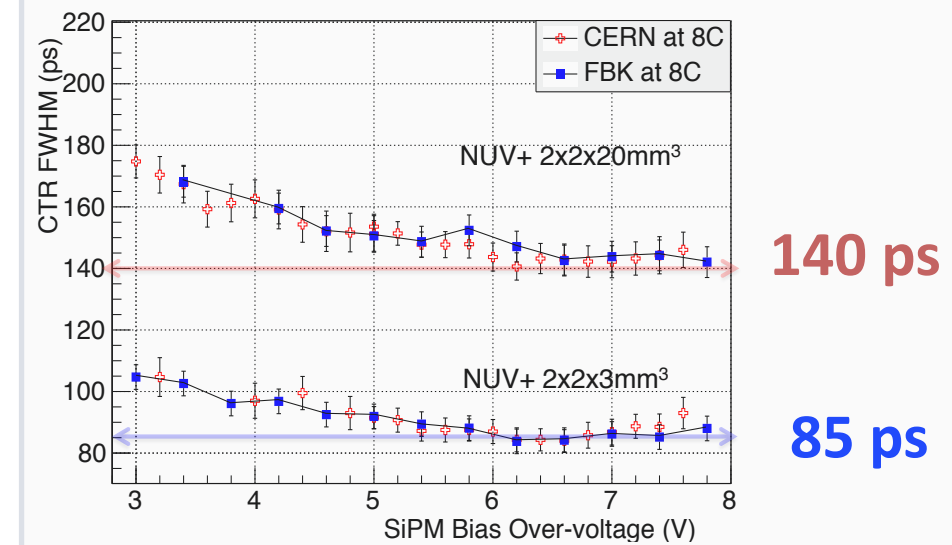


20mm Long Crystals

3mm Short Crystals

3. RESULTS

NUV SiPM + LSO Ce: Ca



1. OBJECTIVES

- CTR results **LSO: Ce codoped 0.4%Ca crystals + FBK SiPMs**.
- Measurements at two **independent** experimental setups at **CERN** and **FBK**.
- Investigate the **factors** for better timing.

4. SUMMARY

Crystal size (mm ³)	CTR FWHM (ps)	CTR FWHM (ps)
LSO Ce: codoped Ca	NUV	RGB-HD
2x2x3	85±4	90±5
2x2x20	140±5	150±6