

# Performance of a 64-channel, 3.2x3.2cm<sup>2</sup> SiPM tile for TOF-PET application.

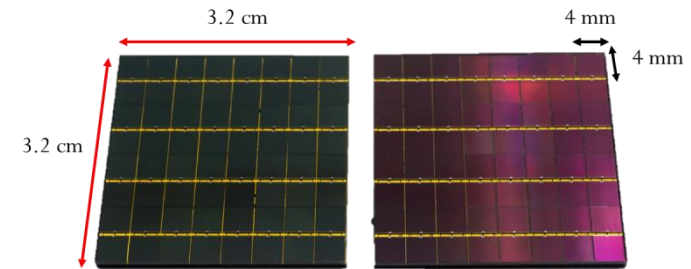


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We developed a 3.2x3.2 cm<sup>2</sup> tile composed  
of **8x8 SiPM with 4x4mm<sup>2</sup> regular pitch**.

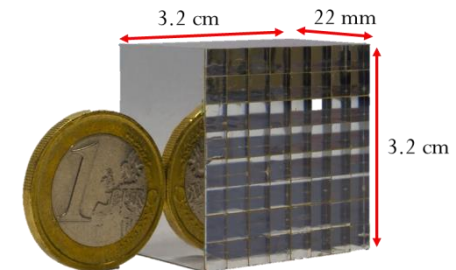
The tile fill factor is 85%.

Manufactured with two SiPM technologies:  
RGB-HD and NUV.



Employed SiPM tiles:  
RGB-HD (left) and NUV(right)

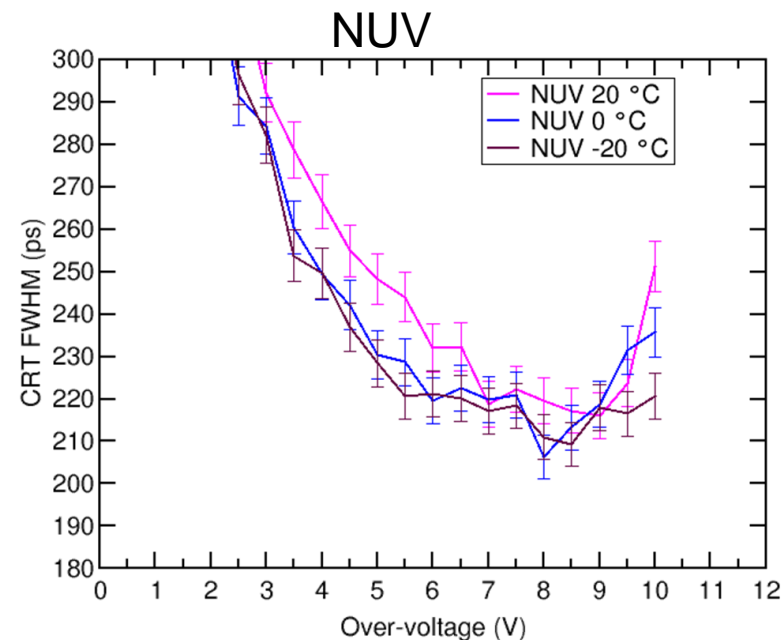
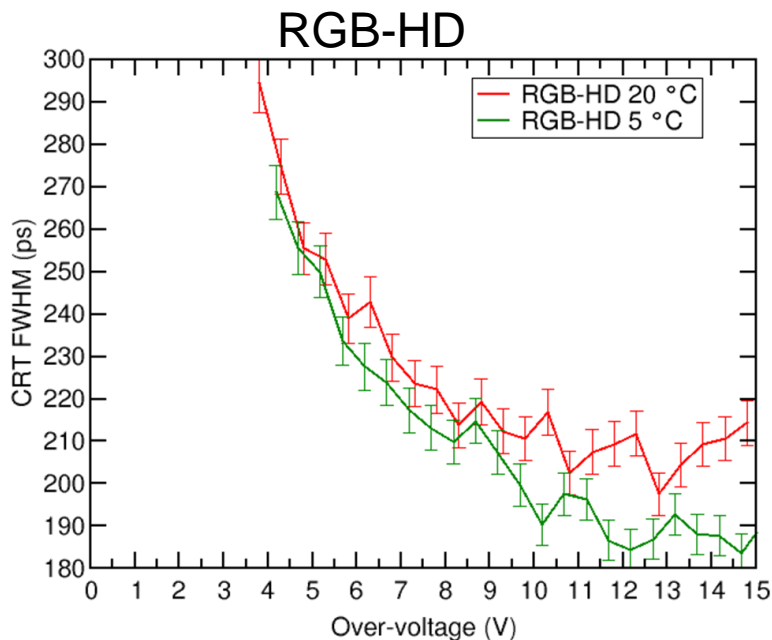
We measured **energy and timing resolution** of both  
versions using a segmented LYSO array with pixels of  
4x4x22mm<sup>3</sup>



Employed LYSO array  
Pixel size: 4x4x22 mm<sup>3</sup>

# Results: timing resolution.

## Coincidence resolving time of two tile versions



- Similar resolution, **close to 200 ps FWHM**.
- NUV is less sensitive to different temperatures.