

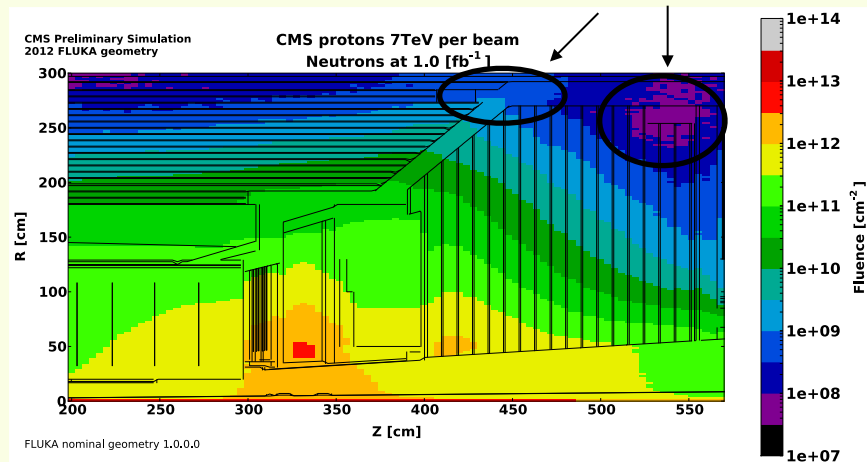


Effects of Very High radiation on SiPMs

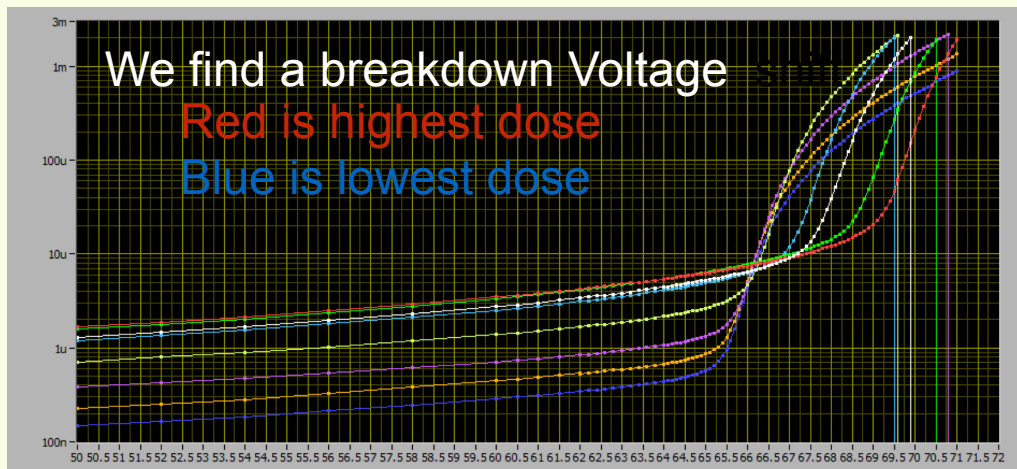
In the last 5 years we have developed SiPMs for installation in the outer regions of the CMS detector (dose 10^{12} n/cm²) by the development of small cell (10 micron) devices

To evaluate the possibility of using the SiPMs in the wider CMS environment we have exposed them to 10^{13} to 10^{14} n/cm²

Currently Approved SiPM installation for max 10^{12} n/cm² for 3000 fb⁻¹



HPK 10 micron cell radiated with doses between 10^{13} to 10^{14}



LED signal of FBK 12 micron cell SiPM

We see also Loss of gain at room temperature

