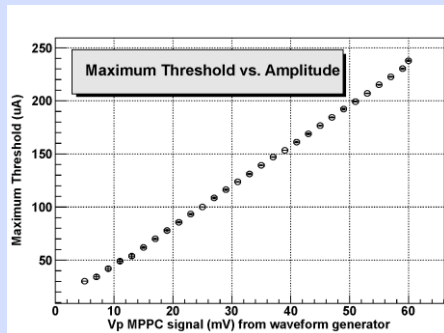
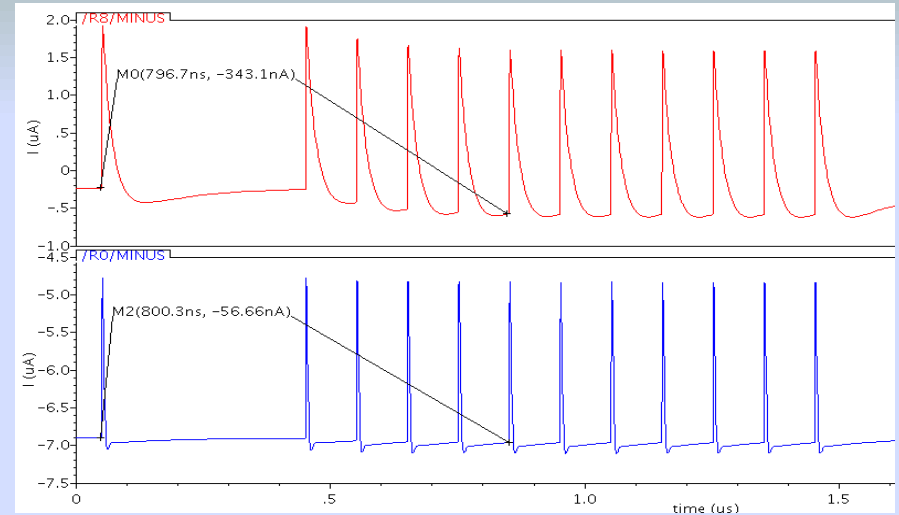
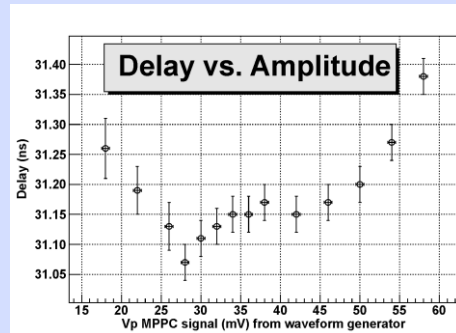


Simulation and preliminary test results

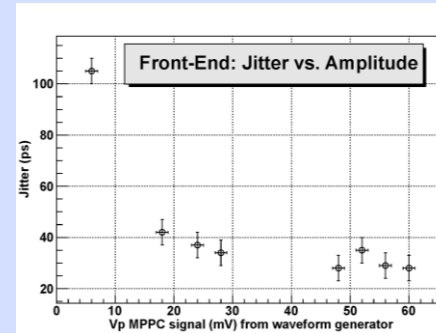
Simulation results show the effect of the current feedback filter. The signal flowing out from the first stage with feedback (bottom) reveals a strong reduction of the level shift caused by the high rate repetition events, with respect to the signal output of the same stage without this feature (top).



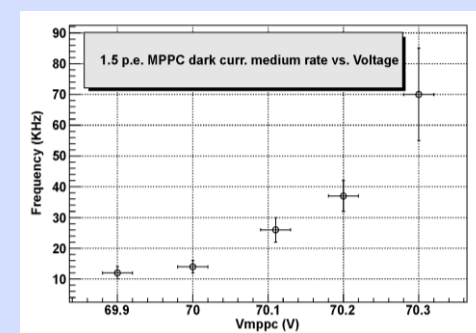
Good linearity between the value of the arming threshold and the peak value of the MPPC-equivalent incoming signal.



Time-walk is contained within 200 ps in a large range of MPPC-equivalent incoming signal amplitude.



The measured jitter of the bare front-end as function of the peak value of the MPPC-equivalent incoming signal.



Dark current rate as a function of the operating voltage of the MPPC device.