

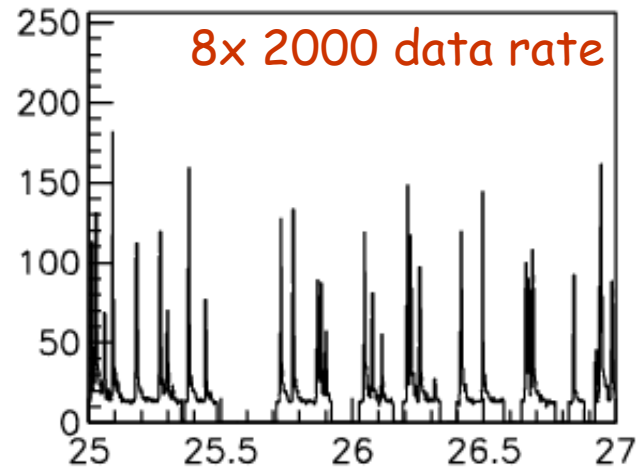
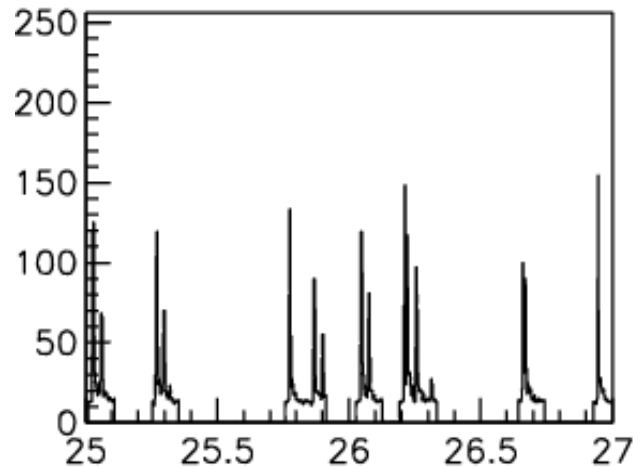
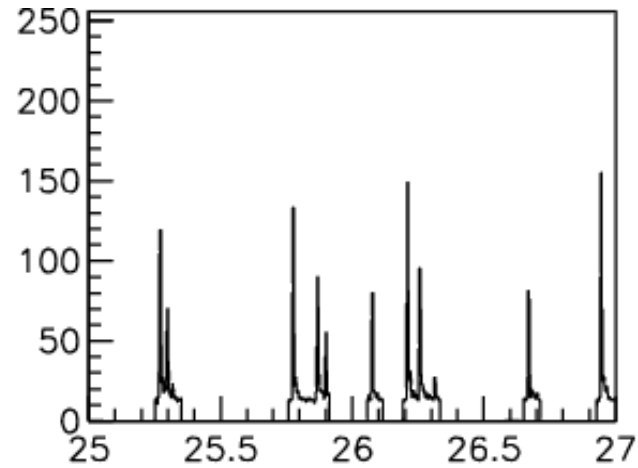
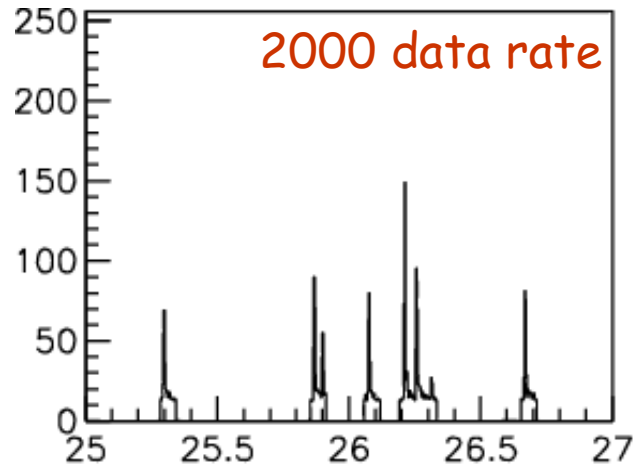
Simulation of the high rate by combining raw data from several fills

Ivan Logashenko

Study done in 2002

- **Idea:** get high rate by adding fills together and test the reconstruction software/pileup subtraction at high rate
- **Implementation:** the pedestal is reconstructed for each fill and subtracted; then the raw samples from several fill are added together; the resulting "raw" data is reconstructed the same way as the real raw data

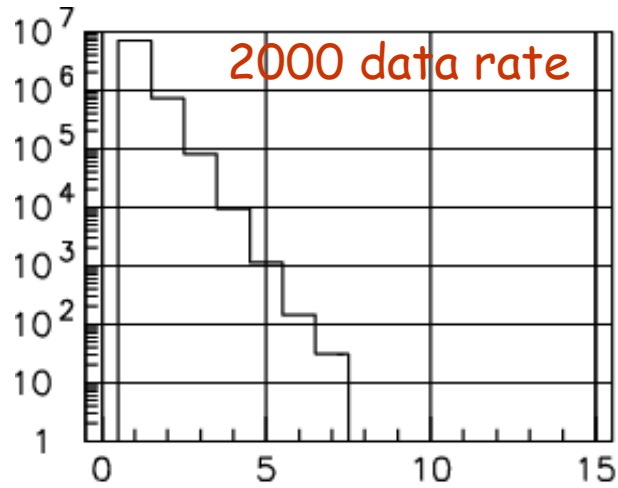
Example of WFD traces



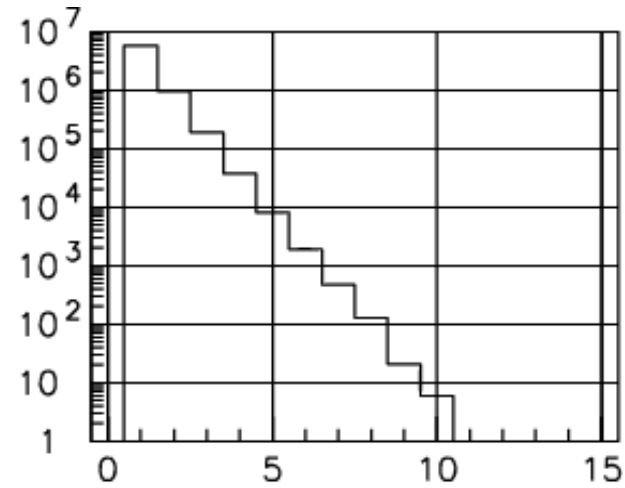
4 fills combined

8 fills combined

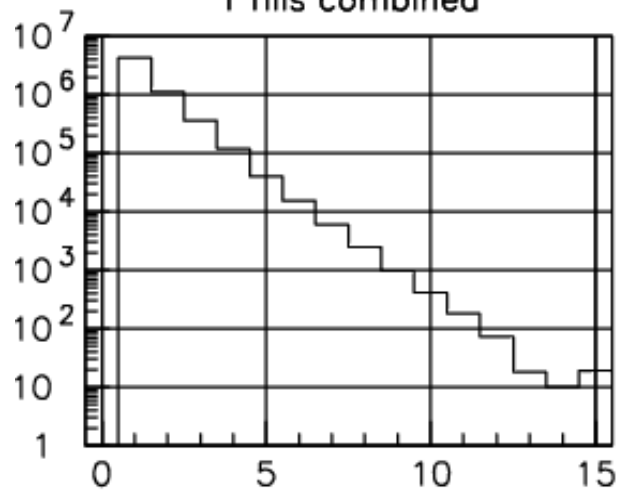
Number of pulses on the island



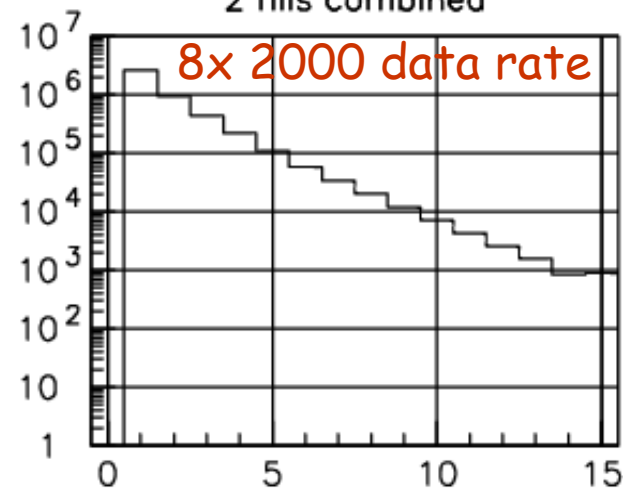
1 fills combined



2 fills combined

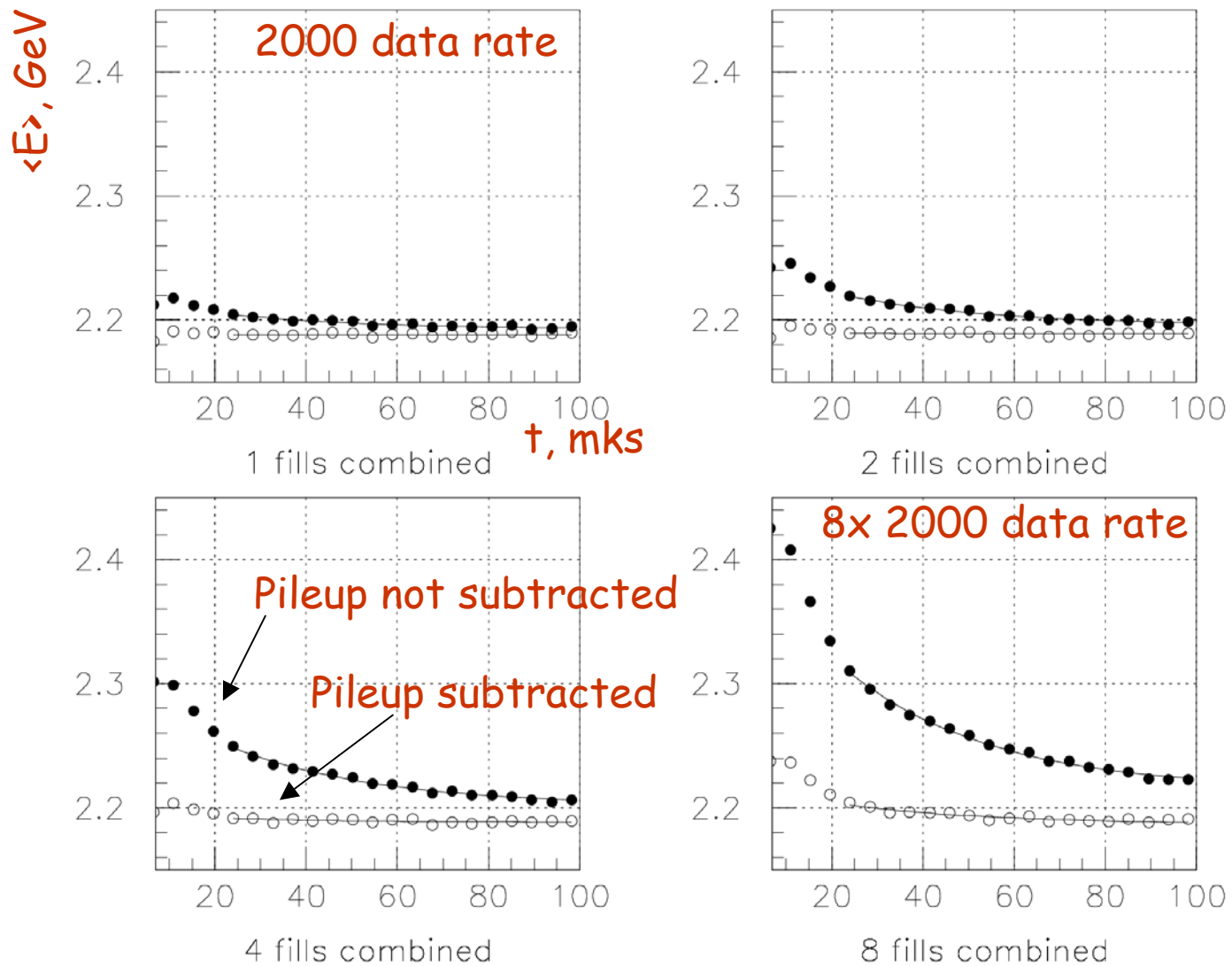


4 fills combined



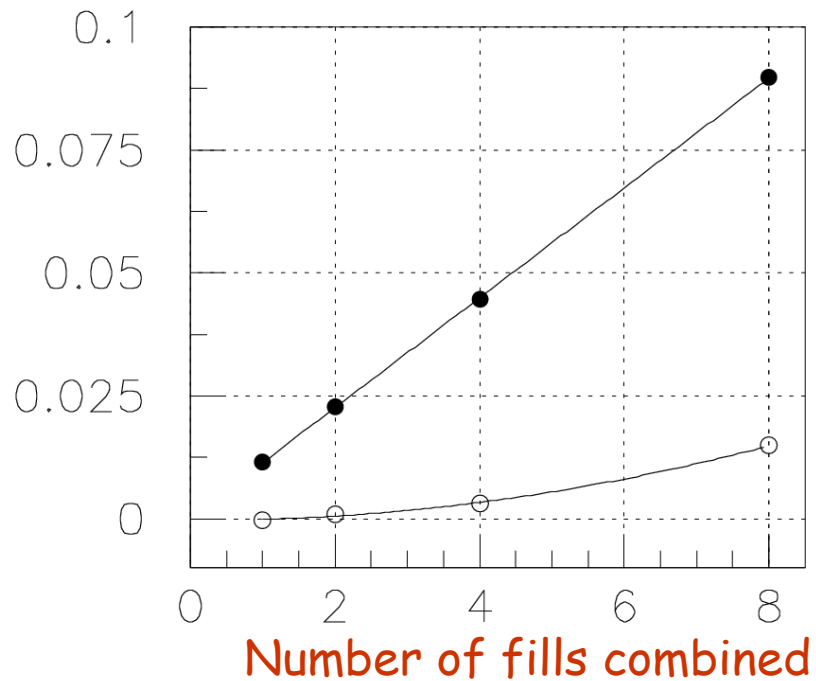
8 fills combined

Average energy vs time

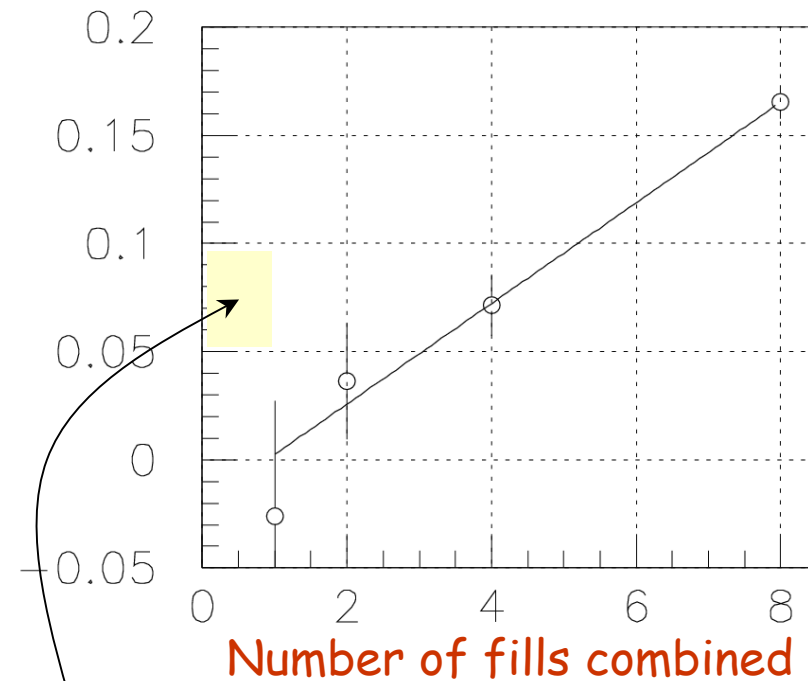


Efficiency of pileup subtraction

$\Delta E/E$ @ 25 mks



Amount of leftover pileup @ 25 mks



Quoted in the analysis reports