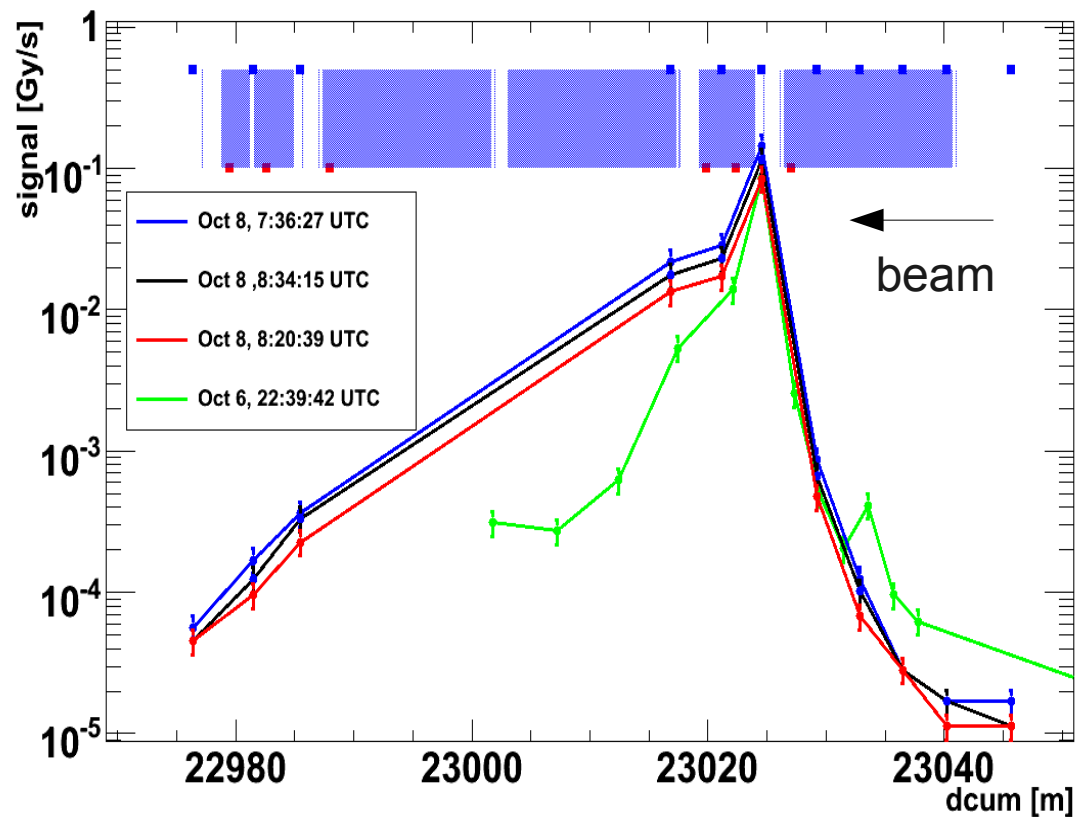


Preliminary results from BLM system (unmasked dump test)

M.Sapinski for BLM team
(Hardware Commissioning meeting)

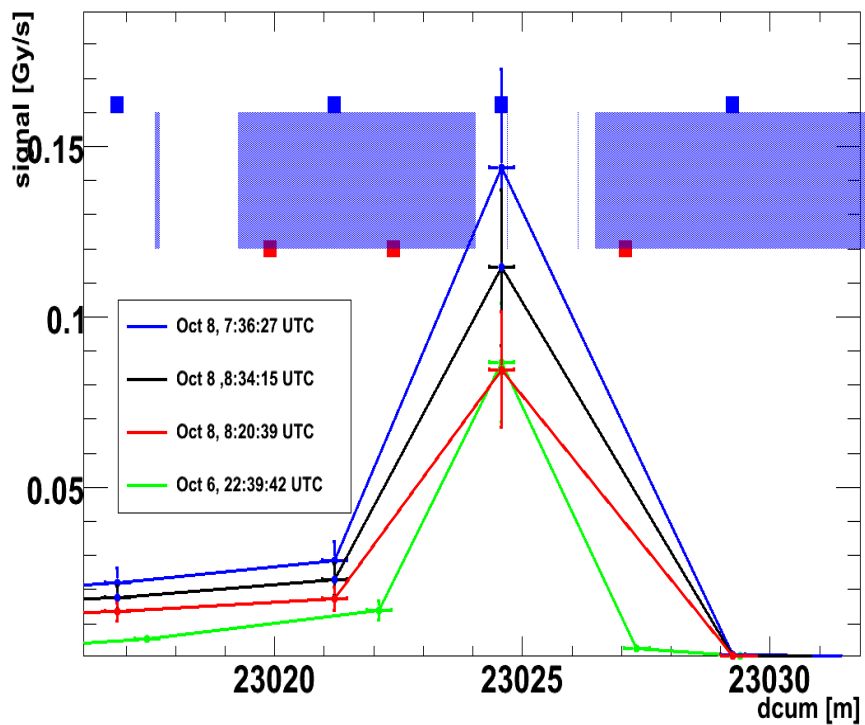
Repeatability

- Four dumps were generated during the last injection test.
- In all cases post-mortem data has been produced.
- The thresholds were lowered to 3% of Quench Level.

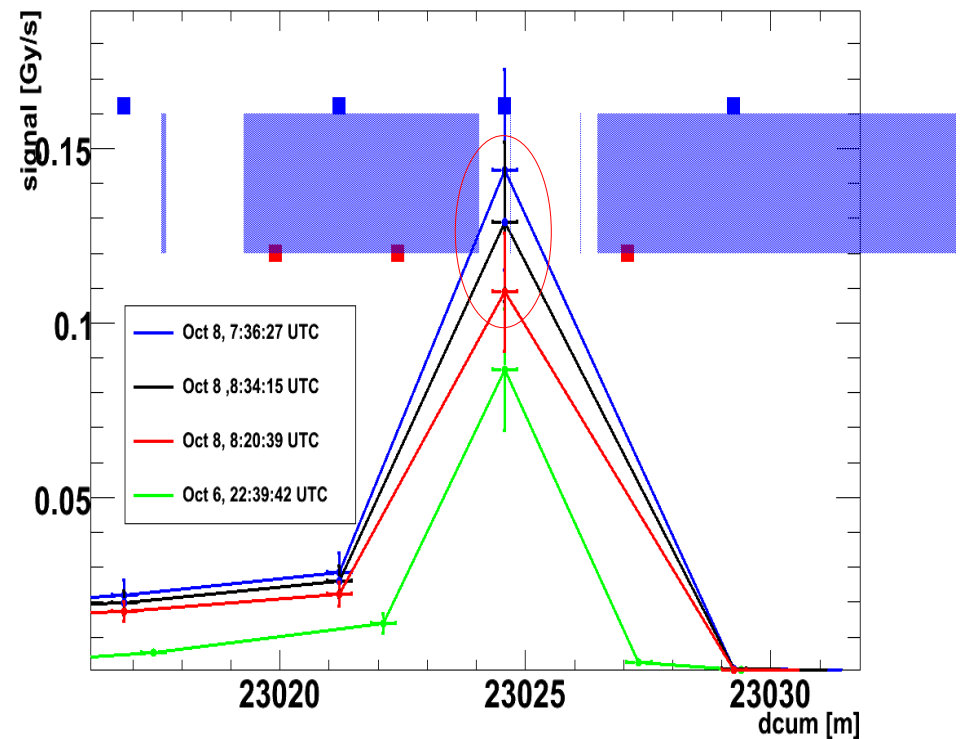


Repeatability – peak signal

not corrected

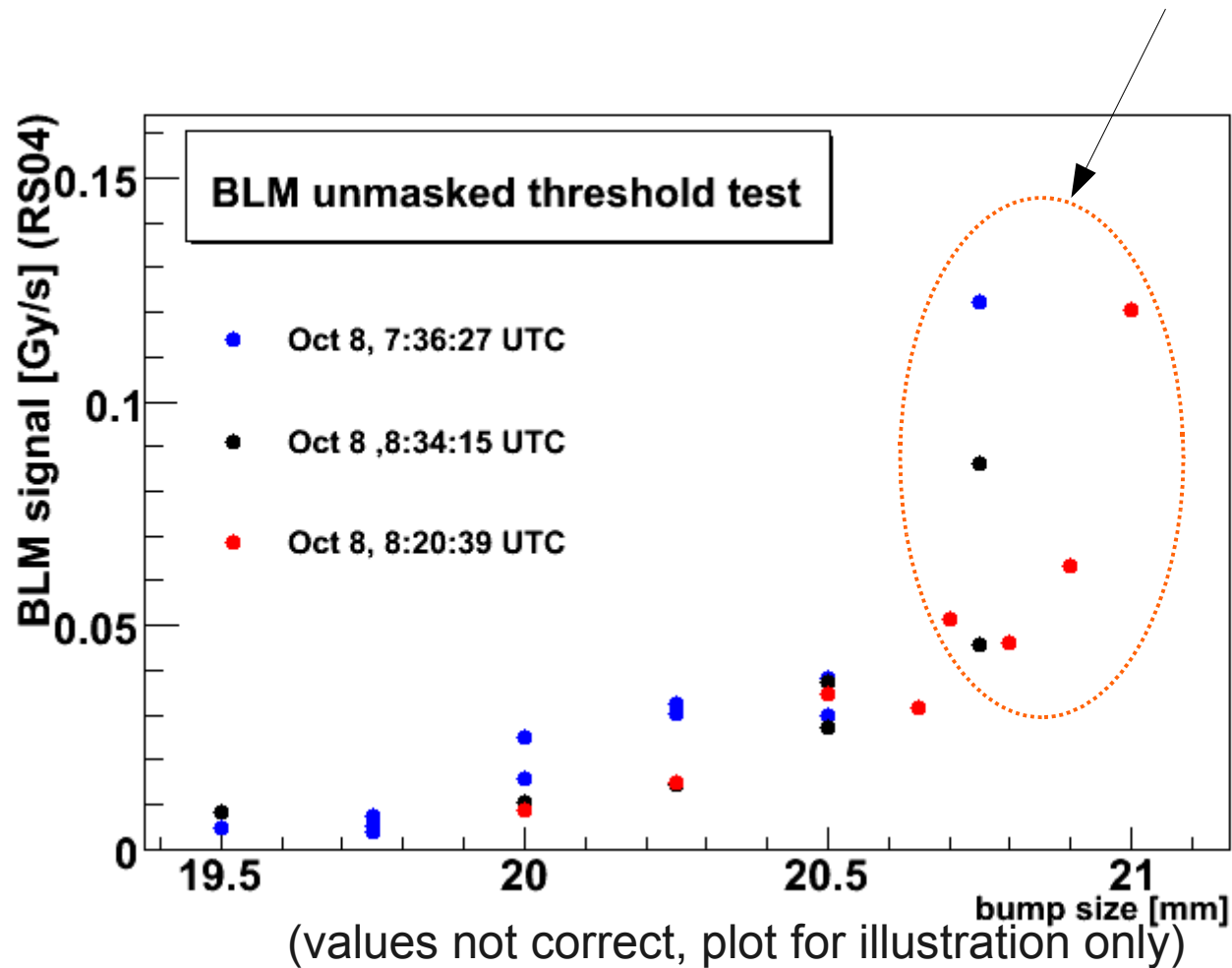


corrected for beam current
signal: 0.14 ± 0.2 (15 %)



Signal as a function of bump amplitude

Signal increases by about a factor 2 per 0.1 mm of the bump.



Latency ..

Timestamps from MKI to BIS:

Difference in time between the bunch at the MKI and the break of the beam permit loop recorded at the BIC:

RESULTS from 23/10/2009:

1st PM [BIC-MKI] = 133 μ s

RESULTS (preliminary) from 08/11/2009:

1st PM [BIC-MKI] = 124 μ s

2nd PM [BIC-MKI] = 126 μ s

3rd PM [BIC-MKI] = 115 μ s

Distance from MKI to 7R3_TCLA using DCUM: $|3182 - 6413| = 3281$ m or **10.7 μ s**

Cable from monitor to acquisition electronics: ~500 m or **3.0 μ s**

Fibre from acquisition to processing electronics: ~1000 m or **3.0 μ s**

Detection of change in frequency in the electronics: **3.5 μ s**

+
20.2 μ s

**Decision at the threshold comparator for fast losses is taken every 40 μ s
but might need twice that if data are split between two acquisitions.**