

CDF/D0/AD Luminosity Task Force meeting

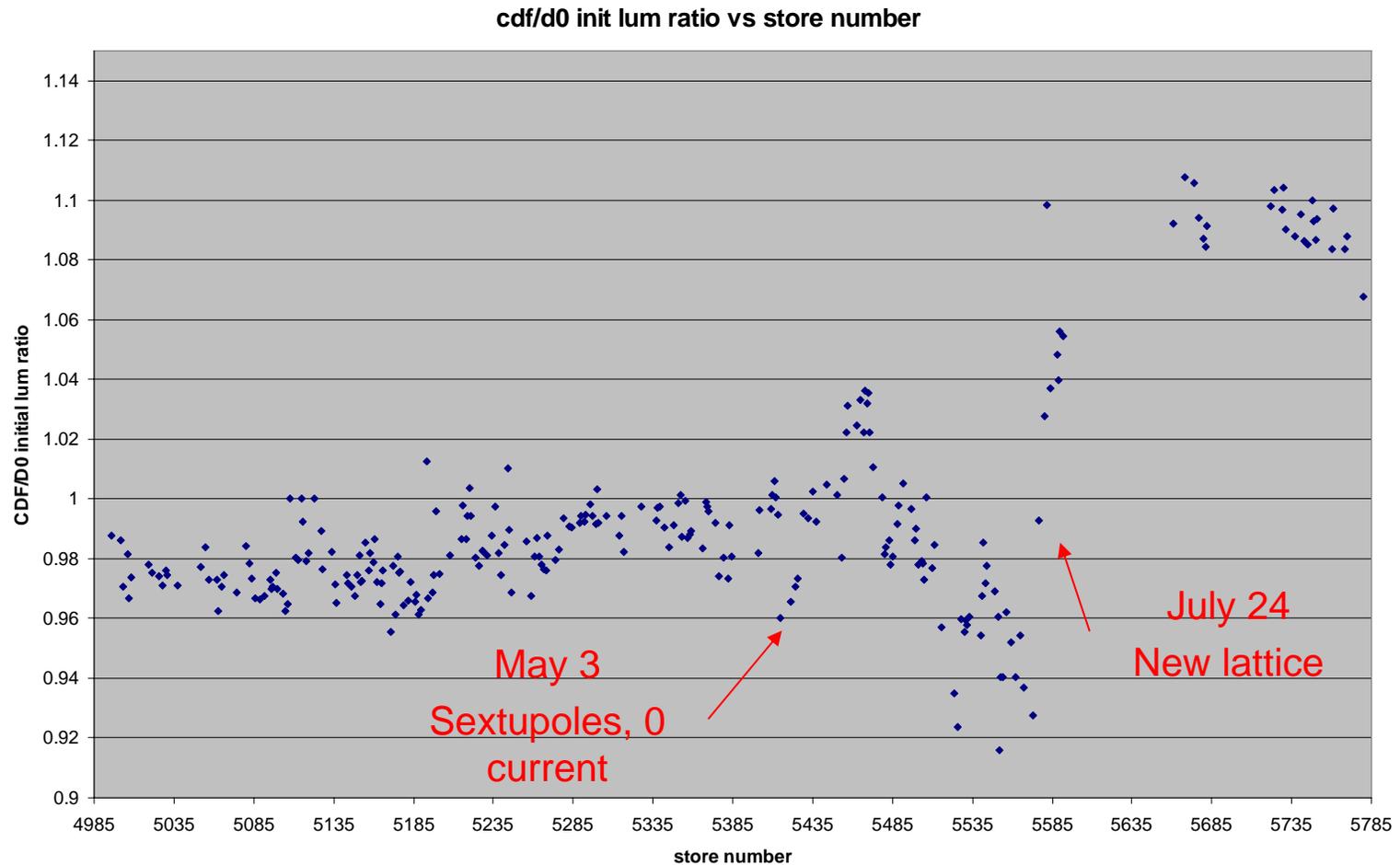
Vaia Papadimitriou

CDF/D0 luminosity ratio and
measured vs expected
luminosities

December 5, 2007

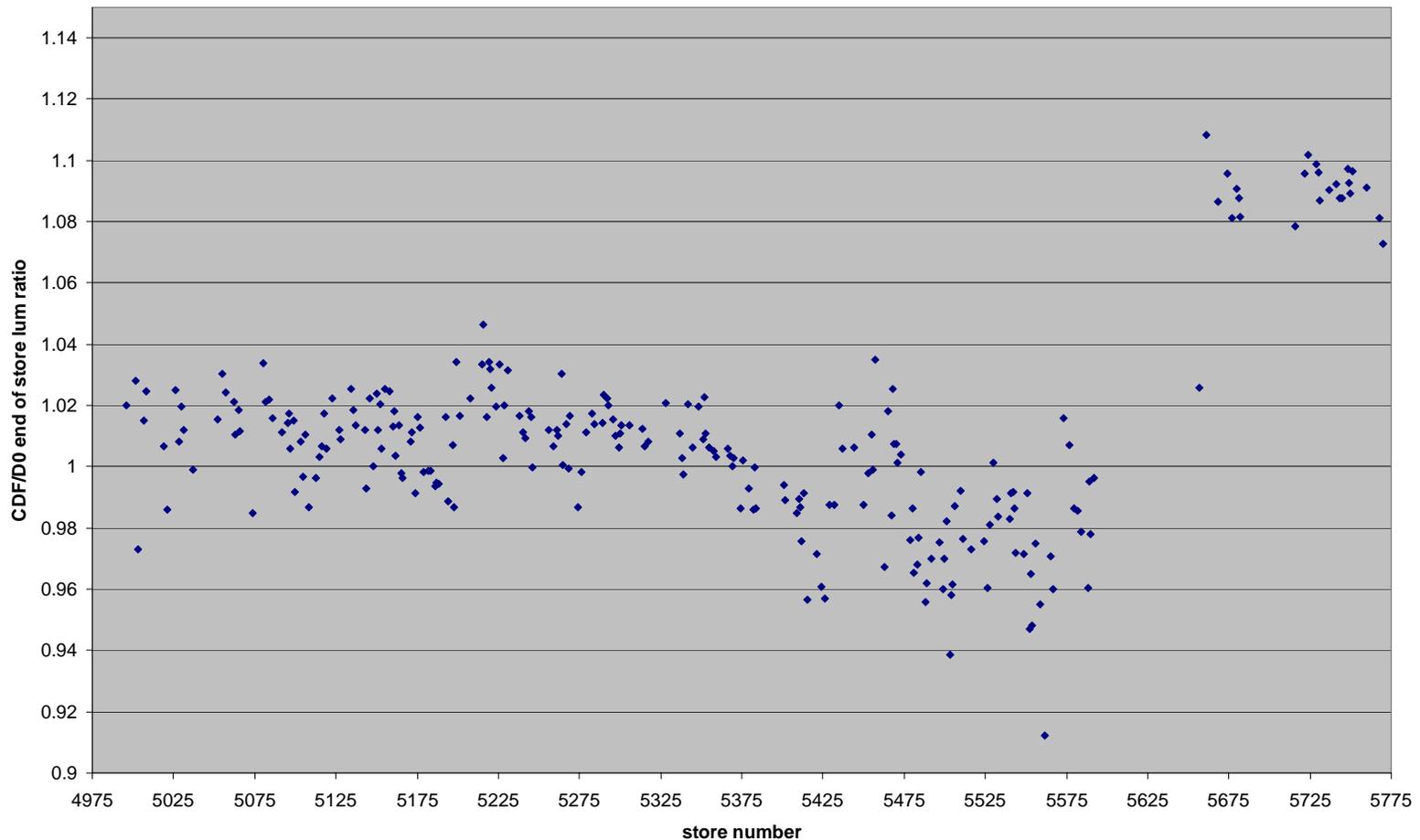
CDF/D0 initial luminosity ratio

October 1, 2006 - December 5 2007



CDF/D0 end of store luminosity ratio October 1, 2006 – December 3, 2007

cdf/d0 end of store lum ratio vs store number

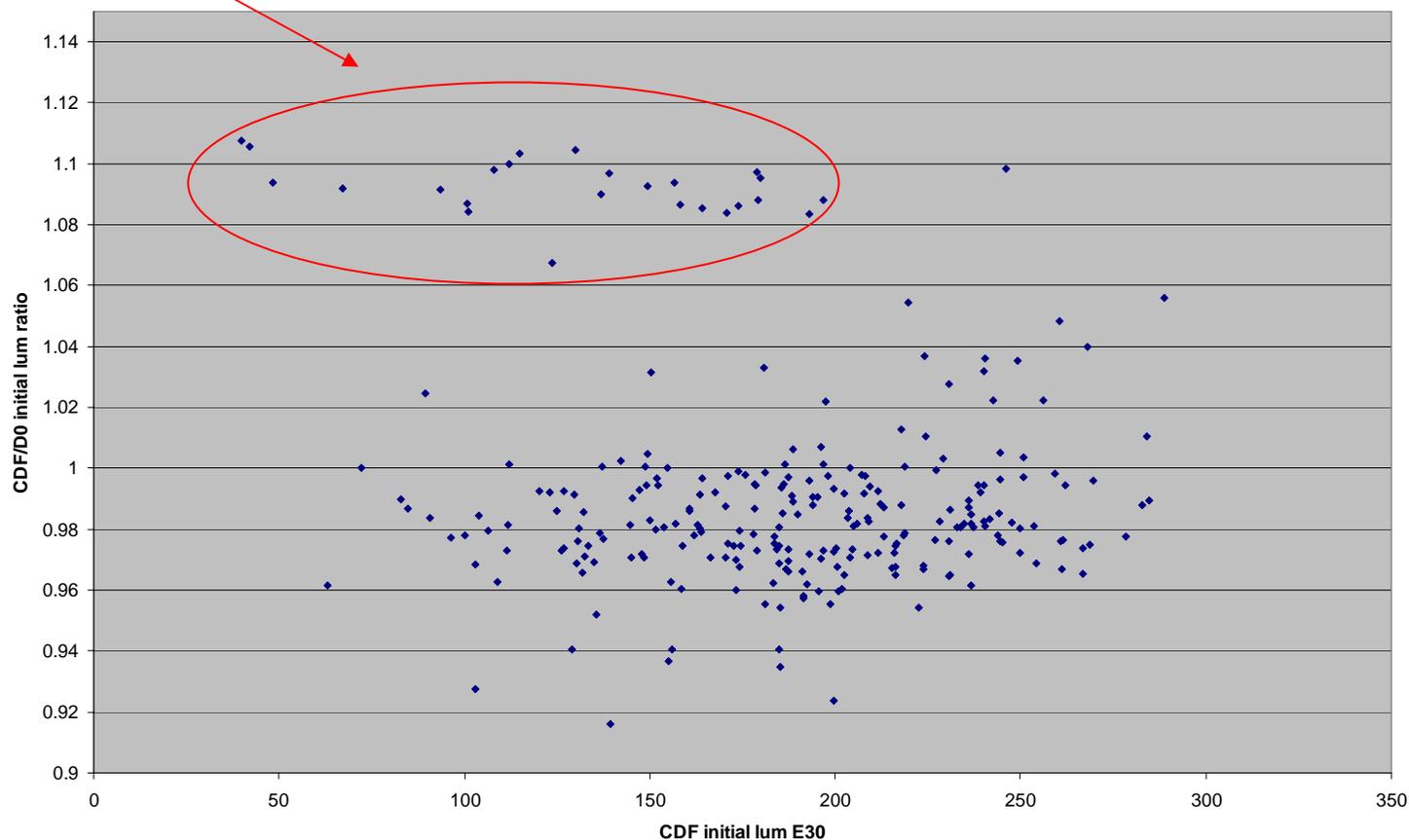


CDF/D0 initial luminosity ratio vs CDF initial luminosity

October 1, 2006 - December 5, 2007

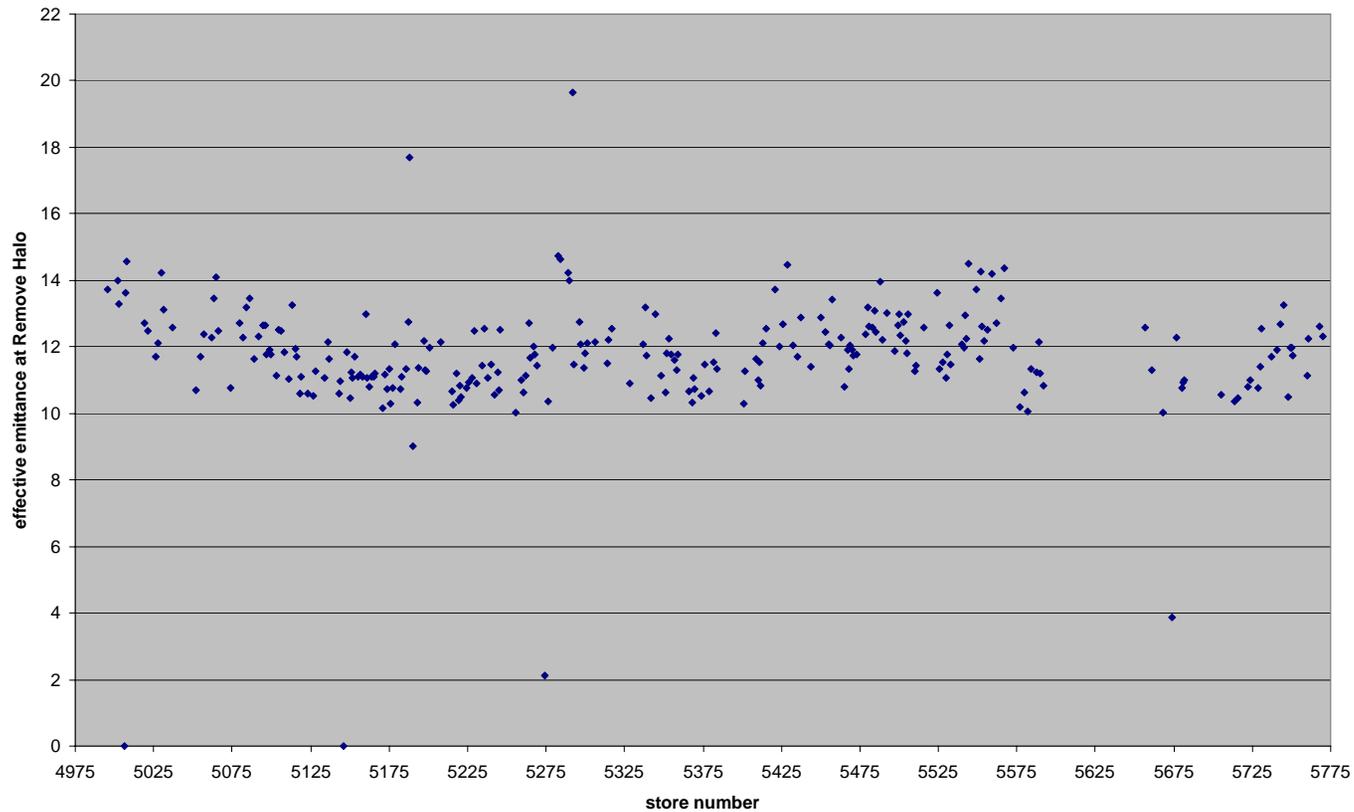
After the shutdown

cdf/d0 init lum ratio vs CDF initial lum



Measured effective emittance at Remove Halo October 1, 2006 - December 3, 2007

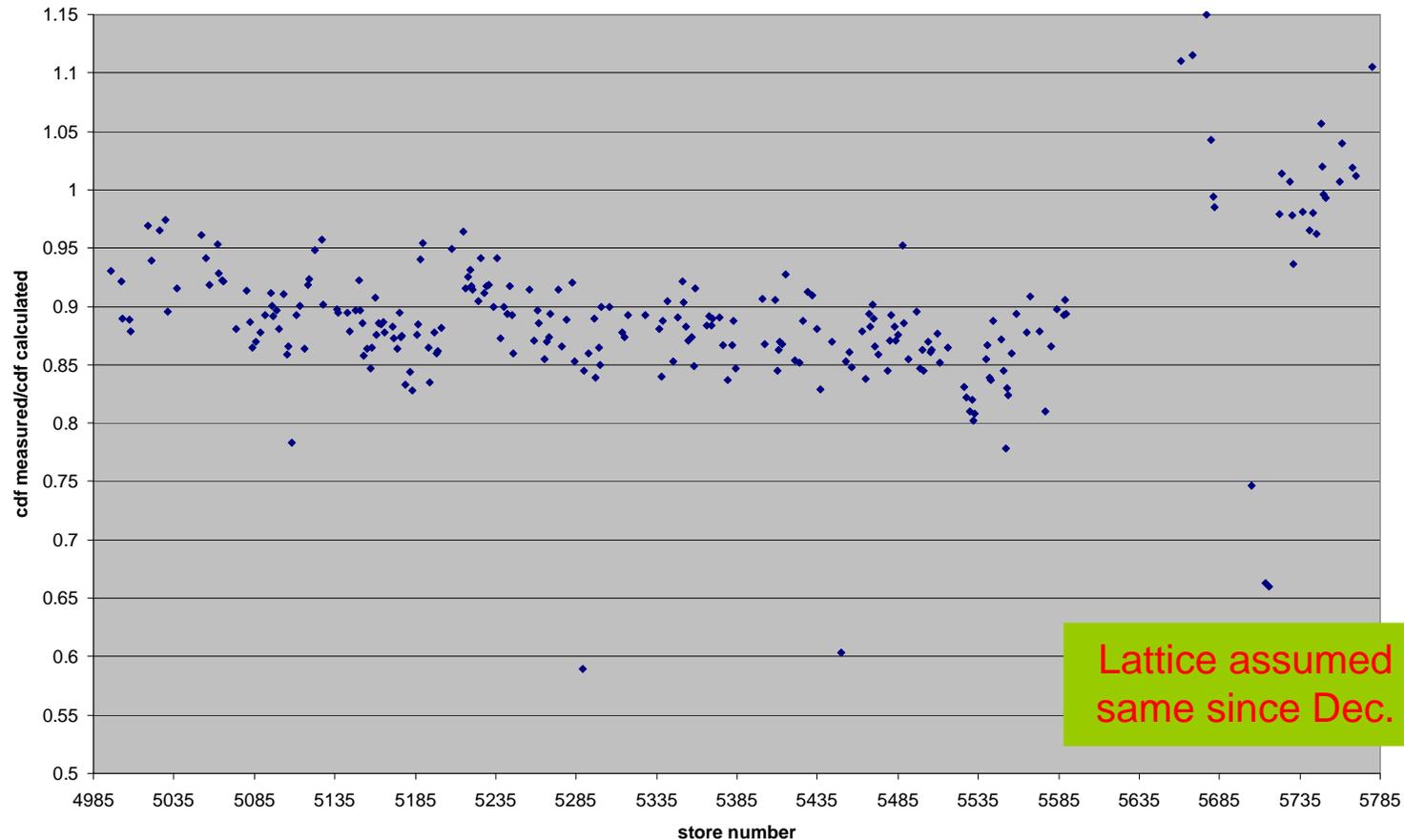
108 Effective emitt from emittances (pi-mm-mrad) vs store number



CDF measured over calculated initial luminosity ratio

October 1, 2006 - December 5, 2007

cdf measured /cdf calculated vs store number

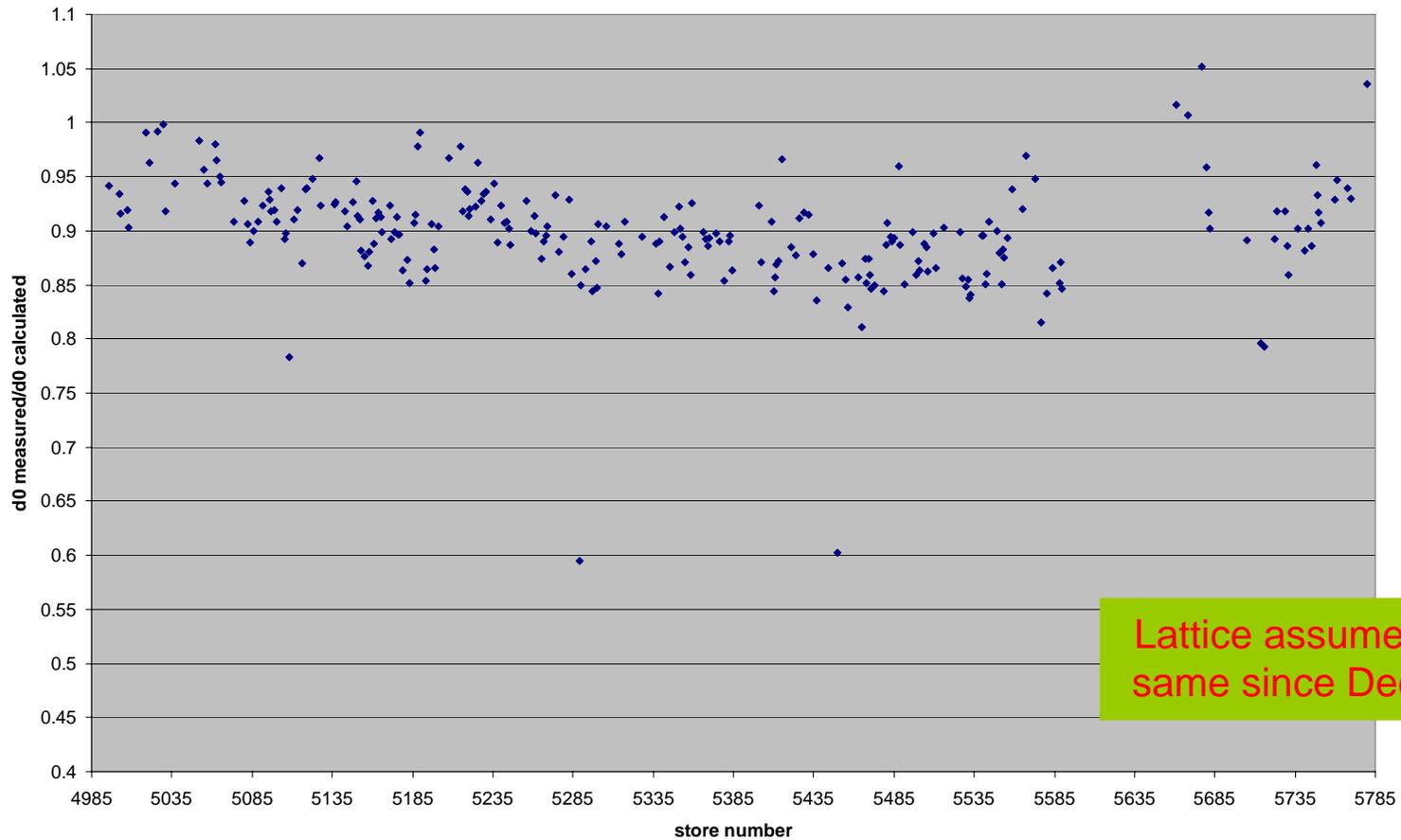


Lattice assumed to be the same since Dec. 10, 2005

D0 measured over calculated initial luminosity ratio

October 1, 2006 – Dec 5, 2007

d0 measured/d0 calculated vs store number



Conclusions

After the shutdown the CDF/D0 luminosity ratio has been ranging between 1.08 -1.10. After introducing alpha bumps at D0 on Dec. 3 the ratio became 1.068 in store 5780.

After the shutdown the CDF/D0 luminosity ratio appears to be independent of luminosity.

The CDF and D0 measured luminosities will be compared again to the expected ones after the newly measured Tevatron lattice gets introduced in SDA.

The history of the CDF/D0 luminosity ratio and its dependence on luminosity together with several other performance plots are updated now 4 times a day and can be found in:

<http://www-bd.fnal.gov/pplot/extra.html>