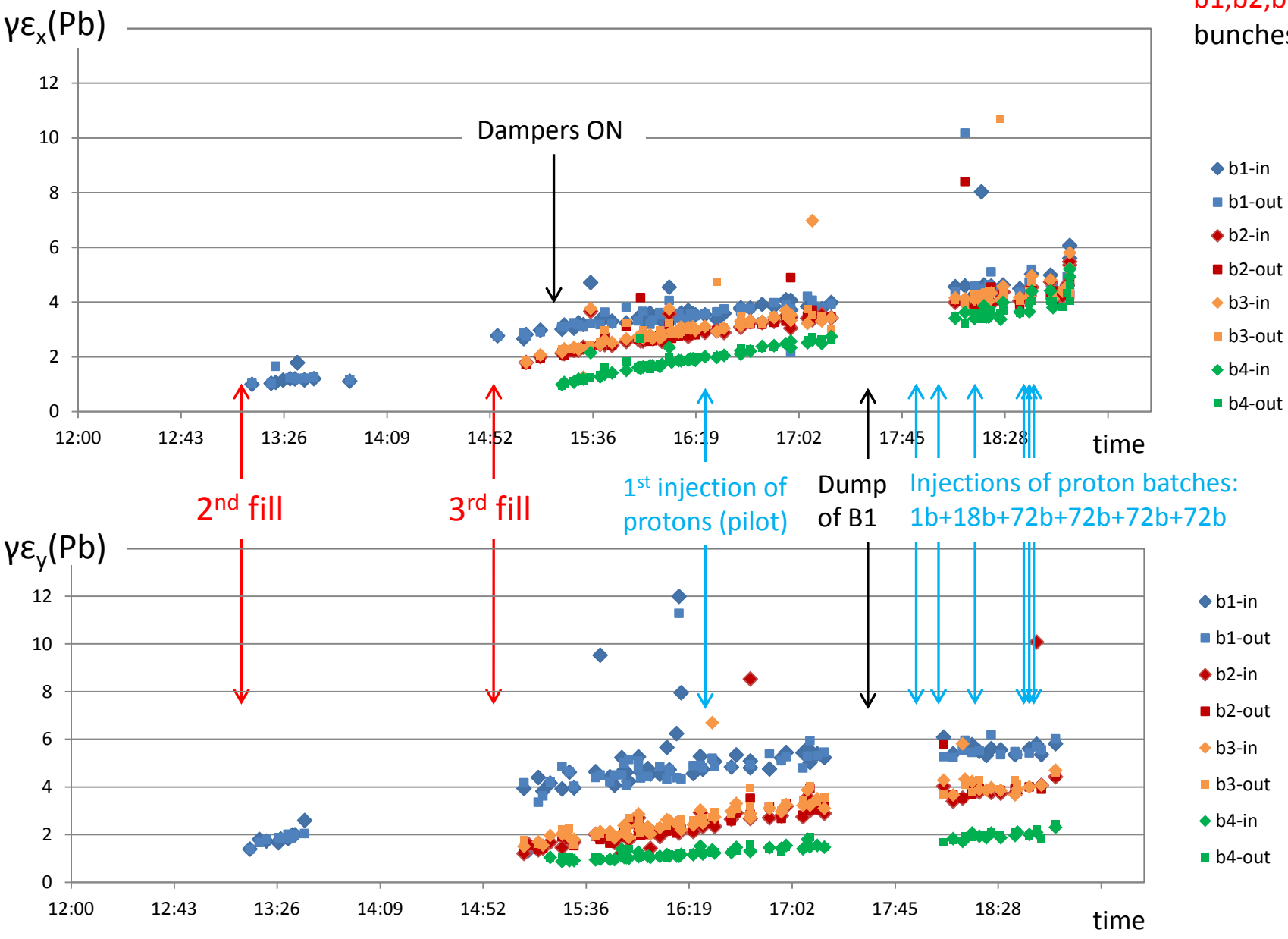
p-Pb MD – 31st Oct. 2011

Preliminary analysis of B2 (Pb) emittance measurements

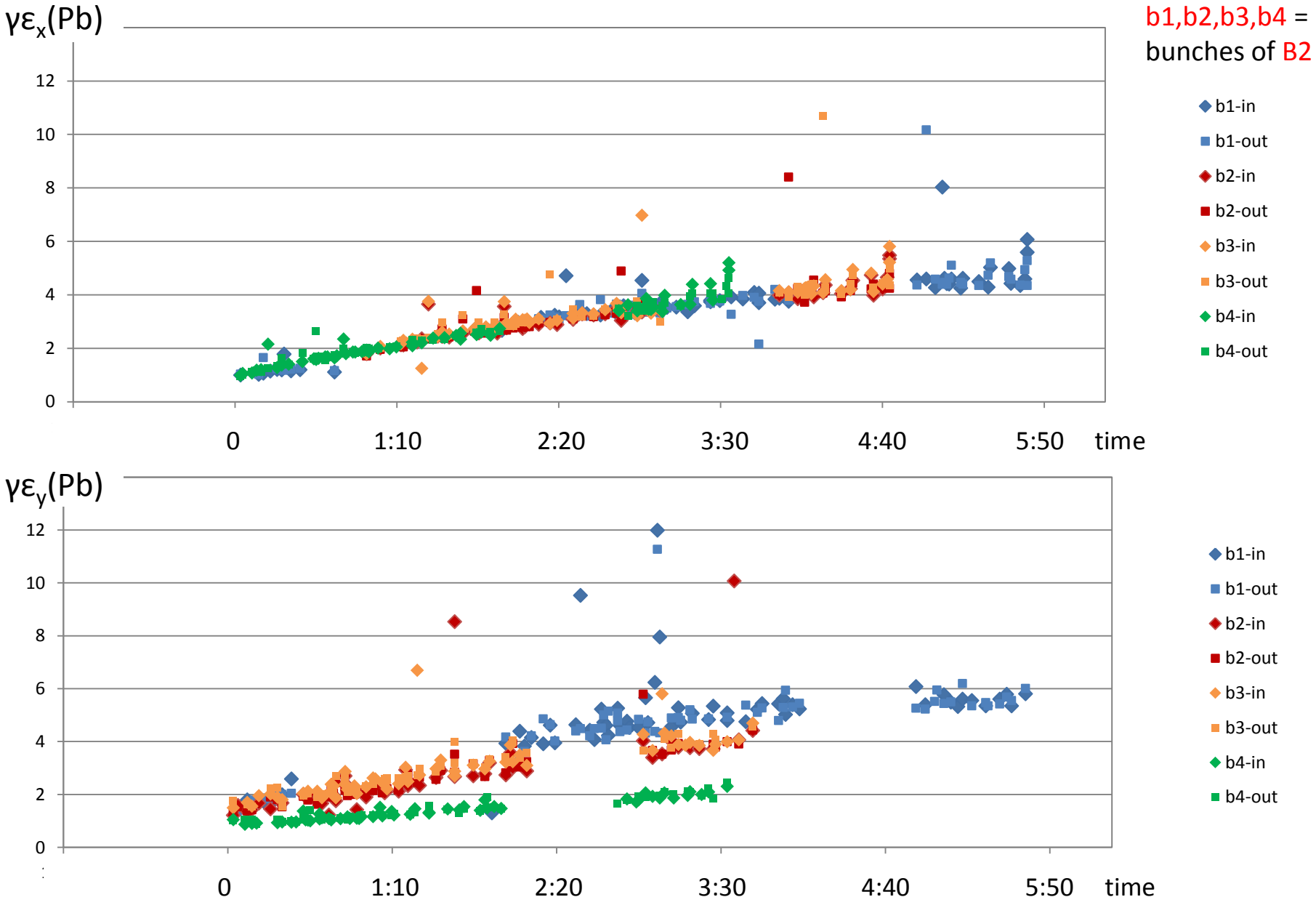
Reine Versteegen

Wire scans of Pb beam B2, 2nd and 3rd fills

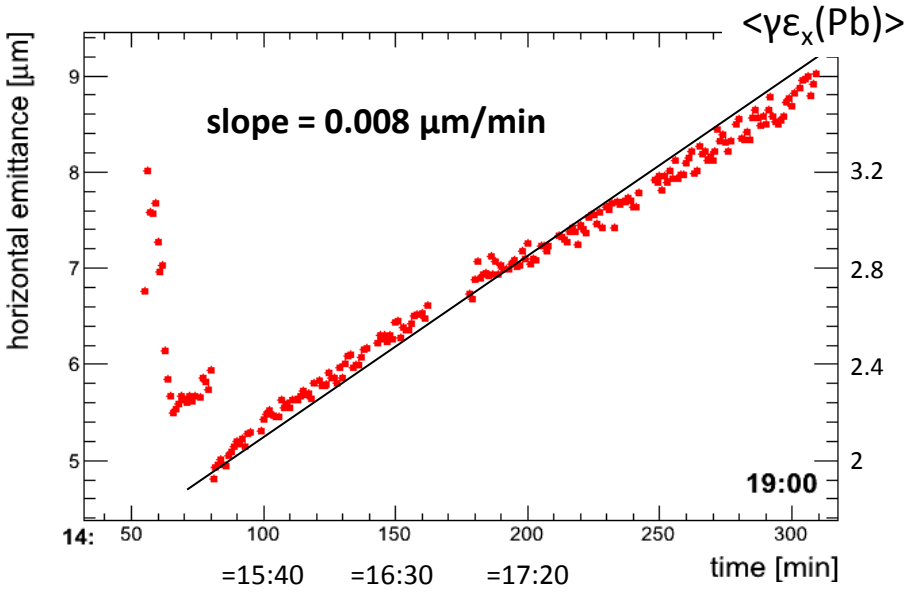
b1,b2,b3,b4 = bunches of B2



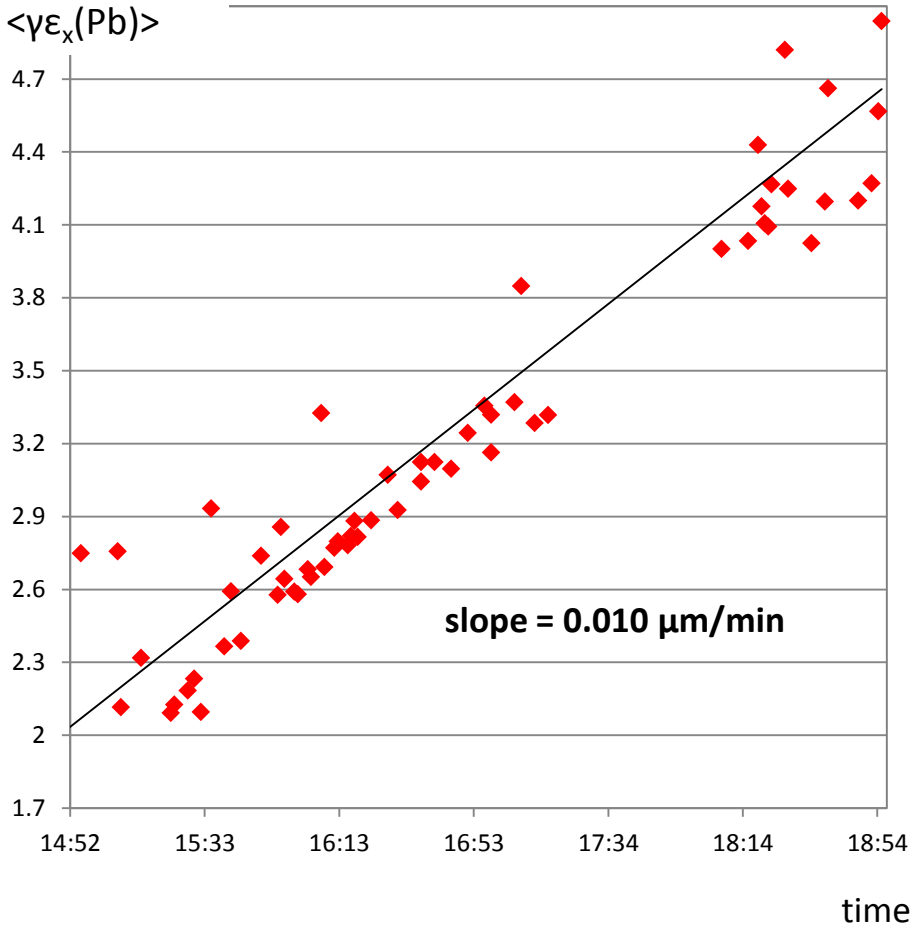
Evolution of bunches emittances, 2nd and 3rd fills



Compare BGI and wire scans data during 3rd fill (x-plane only):



BGI with rough calibration
(Mariusz Gracjan Sapinski)



Wire Scanner

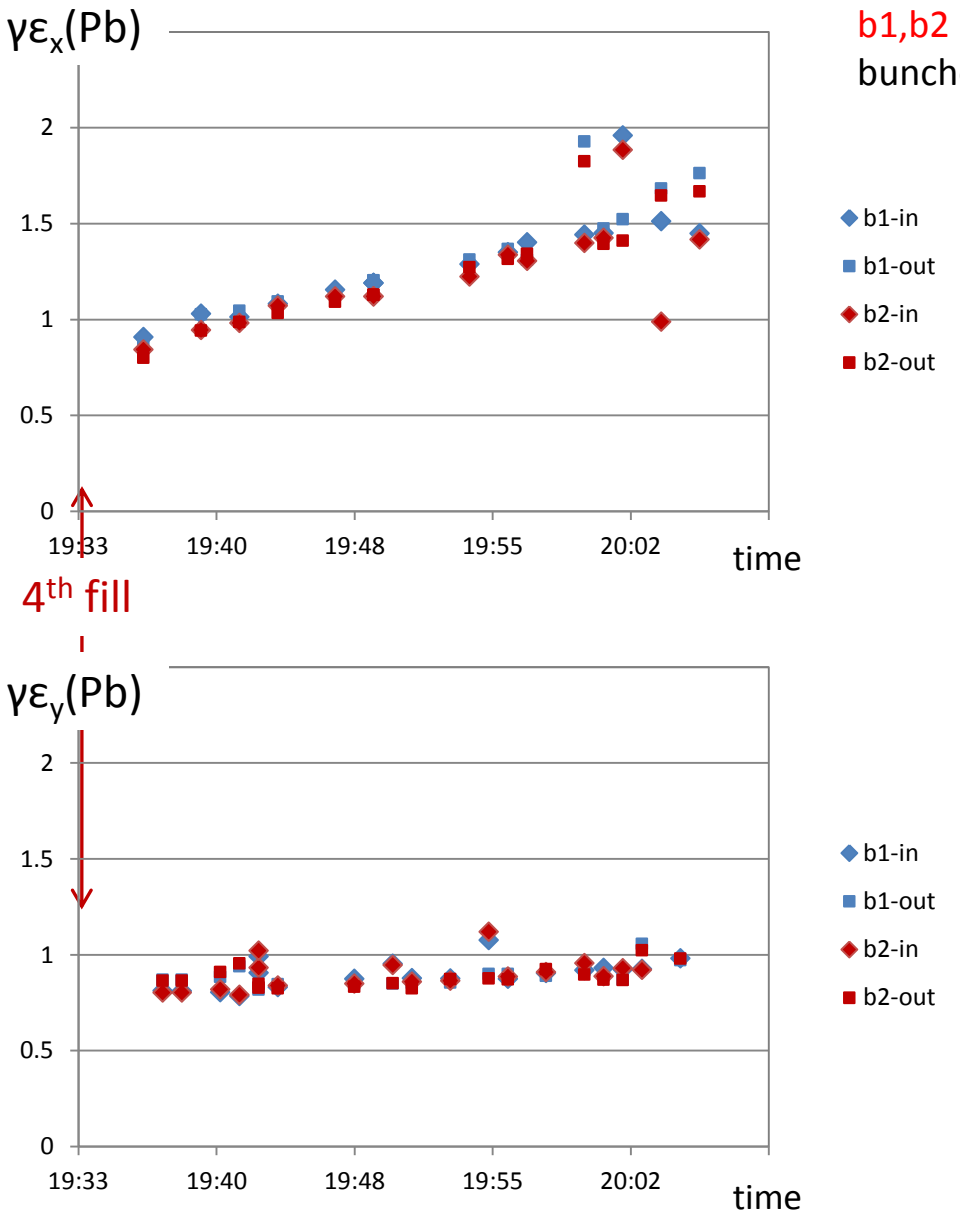
WS gives larger emittances than BGI…

Wire scans of Pb beam B2 in the presence of proton beam, 4th fill

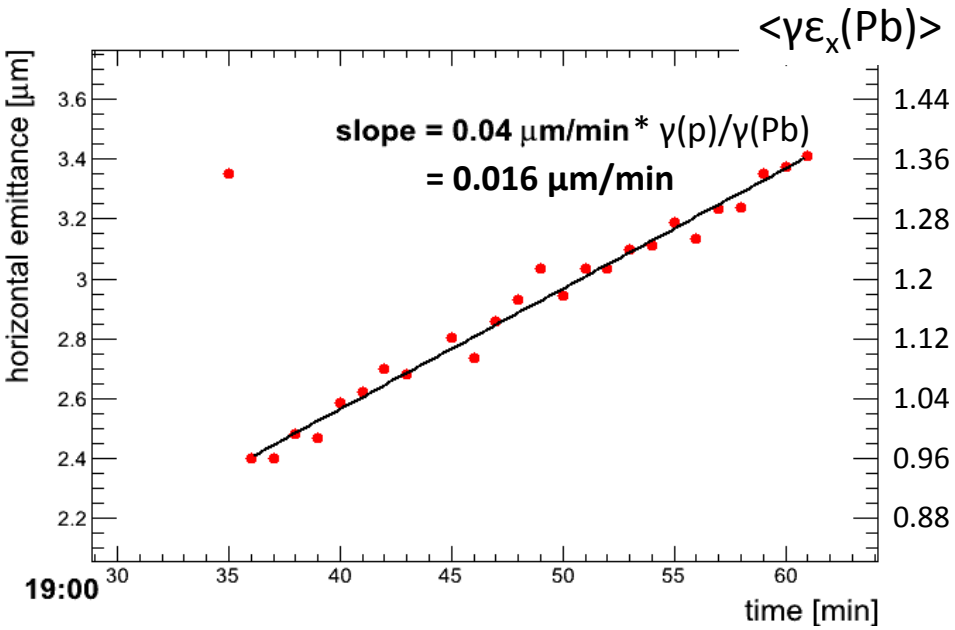
4th fill :

B1 identical: ≈ 300 bunches
B2 = 2 new Pb bunches

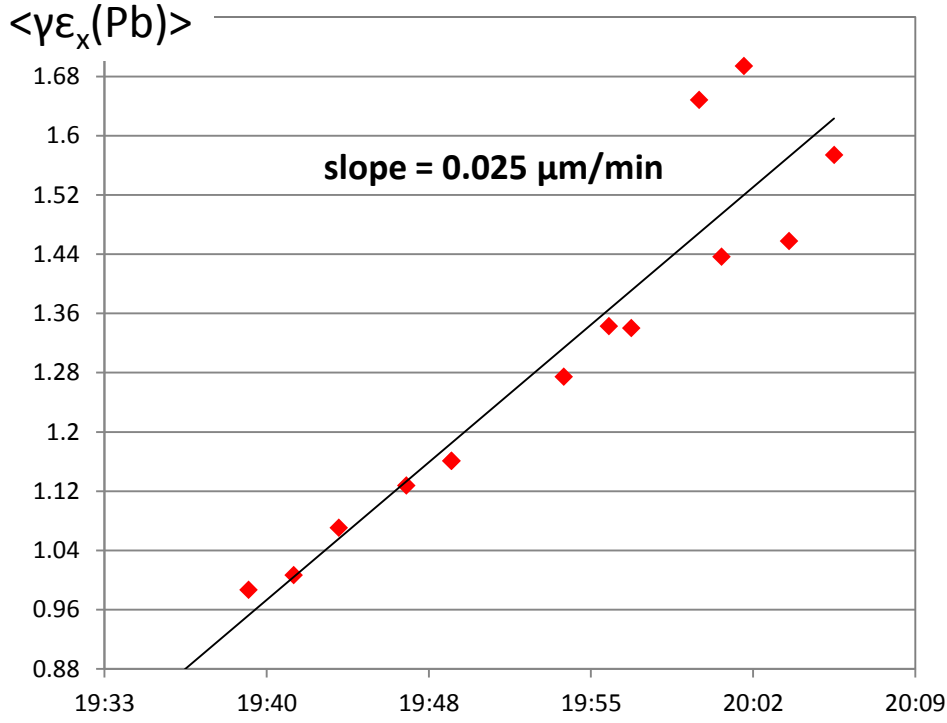
- Horizontal emittance reaches nominal value after 25 min
- IBS will be calculated and compared with these data



Compare BGI and wire scans data during 4th fill (x-plane only):

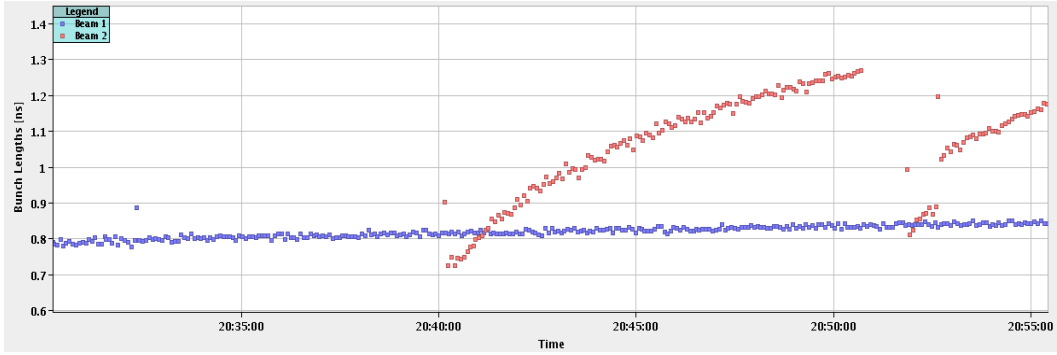


BGI with rough calibration
(Mariusz Gracjan Sapinski)



Wire Scanner

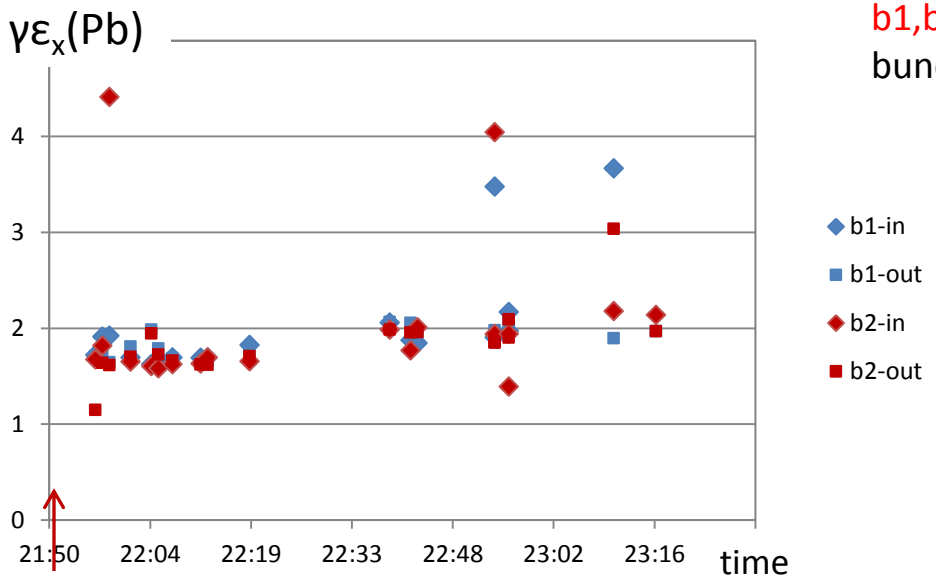
- WS vs. BGI: Same order of magnitude at the beginning of the fill, but different values for the slope
- Slope is bigger than before because of shorter bunches



Wire scans of Pb beam B2, 5th fill

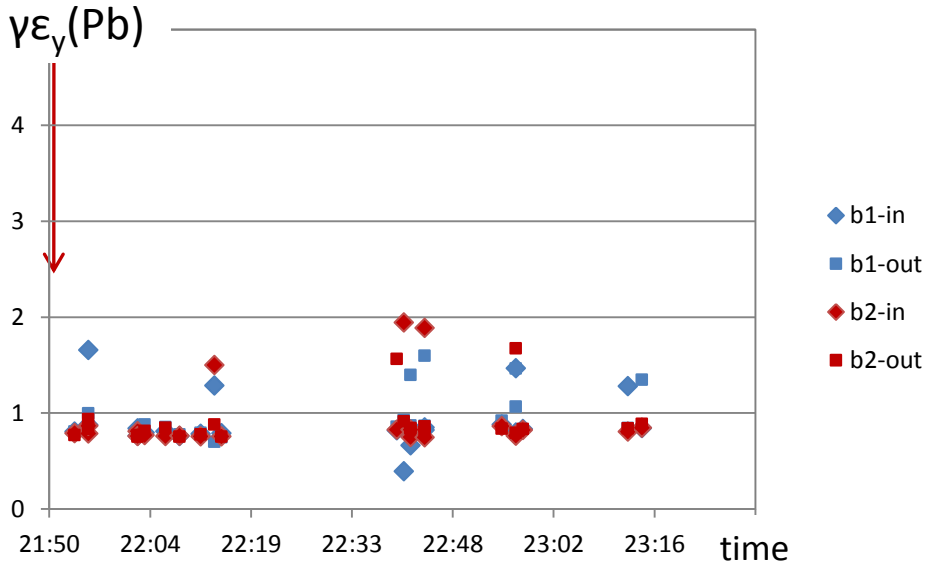
5th fill :
B1 = 2 new p bunches
B2 = 2 new Pb bunches

E = 3.5 Z TeV



b1,b2 = bunches of B2

End of ramp



- No data before or during the ramp,
- No significant emittance growth during frequency trimms and cogging

Thank you