

Calibration curves for the WS at PSB

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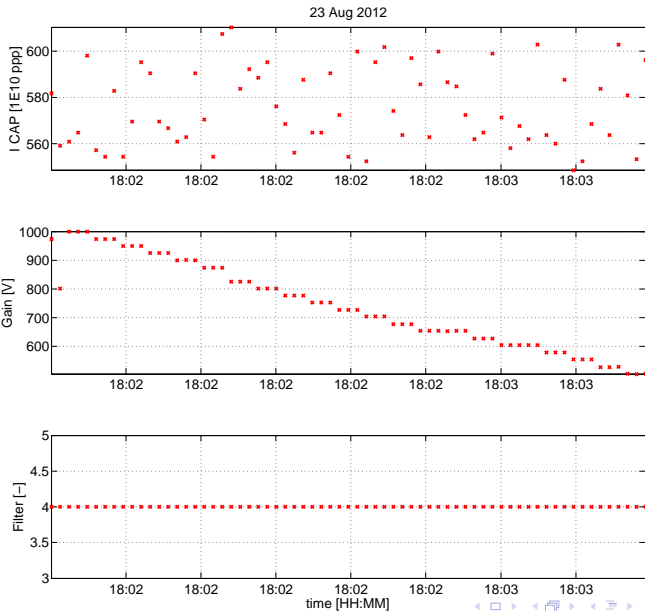
Short preamble

- ▶ 8 WS in the PSB: $(1H+1V)\times 4$ rings.
- ▶ PSB OP needs to measure the beam profiles on a very large variety of energies, emittances and intensities
→ to be sure of the WS settings some saturation curves (WS current vs PM voltage) have been measured.
- ▶ the TIMBER database proved to be extremely useful again.

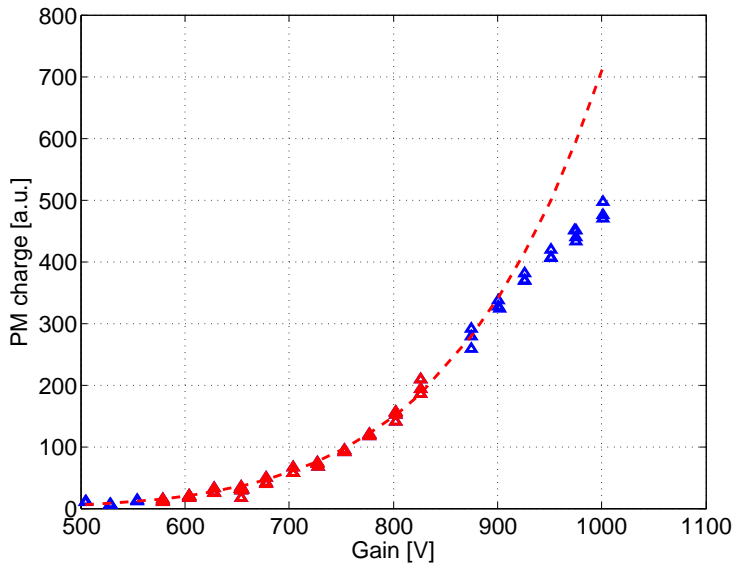
Checking the settings: an example

- ▶ Beam intensity: $6E11$ ppp.
- ▶ Using the vertical WS of R2
- ▶ using the filter 0.5%
- ▶ beam energy of 60 MeV.

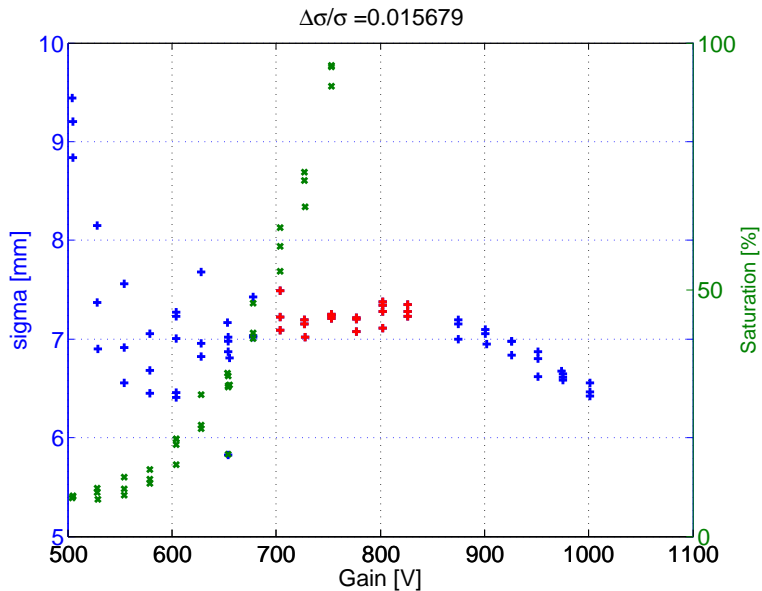
Checking the settings: an example



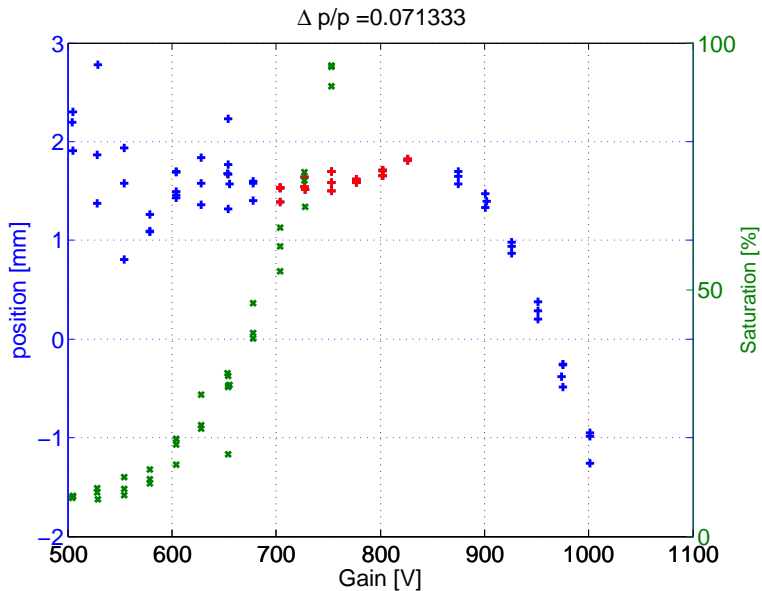
Saturation curve



Beam σ curve



Position curve



Summary

Plane	Current [1E12]	Filter [%]	E [MeV]	PM [V]
V	3	0.5	60	850
H	3	0.5	60	850
V	6	0.5	60	750
V	10	0.5	60	720
H	10	2	160	650
V	10	2	160	650

- ▶ Ana's saturation function is a very good and conservative indicator of the saturation in a wide range of conditions.
- ▶ Still to understand if at low energy there is scattering...
- ▶ Still to understand if the out scans are well calibrated...