Short DLW experiment results

Longitudinal phase space

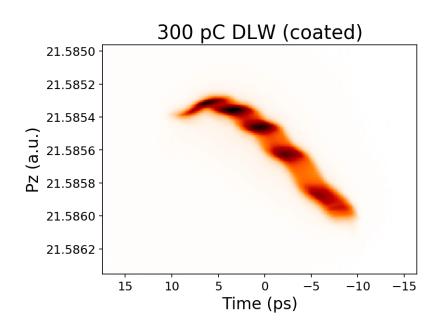
Georgi Georgiev 20 May 2021

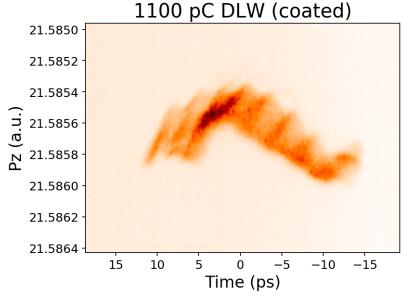
DESY.



THz modulations with DLW

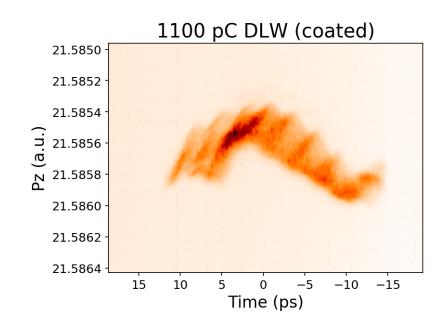
- Redoing of 2017 program
- 1.1 nC beam centered in tubes in Low.Scr3
 - Giving offset of tube + steerers possible better alingemnt
- TDS beam current modulations and LPS taken
 - Vertical slit for better time-resolution
- Scan charges Low.ICT : 1.1 nC, 600 pC, 300 pC
 - Modulations in all tested cases
- TODO: Booster phase scan

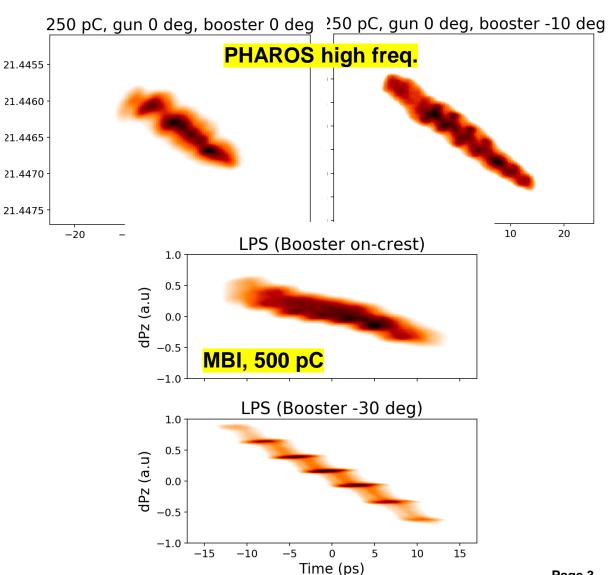




Comparison to photocathode laser modulated pulse

- Modulations from DLW well visible
 - Even with 1.1 nC charge!
 - PC laser option requires booster off-crest
- Modulations with higher beam charge
 - Beam loss limitation







• DLW LPS – booster phase scan

Thank you