Contribution ID: **105** Type: **talk**

Driver/witness bunch PWFA experiments at FLASHForward

Friday, September 20, 2019 9:40 AM (30 minutes)

Owing to high gradient accelerating fields (>GV/m), plasma wakefield accelerators (PWFA) have the high potential of greatly reducing the size of high-average power accelerator facilities. The stability and quality of the acceleration process in the plasma largely depends on the incoming bunch structure. A precise control of the longitudinal bunch profile is essential for the optimisation of the energy transfer efficiency and the preservation of energy spread. At FLASHForward, driver/witness bunch pairs of adjustable bunch length and separation are generated by collimators in a dispersive section. This setup enables μm-level control of the longitudinal bunch profile. Here we present the most recent results of PWFA measurements at FLASHForward.

Primary authors: SCHROEDER, Sarah (DESY); ON BEHALF OF FLASHFORWARD COLLABORATION

Presenter: SCHROEDER, Sarah (DESY)

Session Classification: Plenary Session 9

Track Classification: Invited Plenary Talk