

PS booster operation with Linac4

1. Introduction (7 pages)
 - 1.1 Summary → F. Gerigk
 - 1.2 Linac4 → F. Gerigk
 - 1.3 Proton operation with Linac4 and PS booster → K. Hanke
2. Booster injection (BI) line (10 pages)
 - 2.1 Layout and principle → BT
 - 2.2 Collimation of incoming beam → G. Bellodi
 - 2.3 Distributor (BI.DIS) and septum (BI.SMV), → BT
 - 2.4 Shielding for head/tail dump → M. Silari
 - 2.5 Vertical painting → BT
3. PSB modifications → BT (10 pages)
 - 3.1 Layout and principle
 - 3.2 H⁻ injection (injection beam dynamics, apertures)
 - 3.3 Short range (BS1-4) and long range (KSW1-4) kicker magnets (and power supplies)
 - 3.4 Injection foil (foil heating, foil type, thickness, stripping efficiency, exchange mechanism, unstripped particles [dump?], 2 foils?)
 - 3.5 Horizontal painting
4. Beam dynamics → BD (15 pages)
 - 4.1 Expected Linac4 beam (+ Giulia)
 - 4.2 H⁻ injection
 - 4.3 Horizontal and transverse painting
 - 4.4 Longitudinal capture
 - 4.5 PSB working point
 - 4.6 PSB performance for the required beams
5. General services (3-4 pages)
 - 5.1 Civil engineering (space requirements) → BT
 - 5.2 Diagnostics (BI-line, H- injection, PSB) → K. Hanke
 - 5.3 Reversibility to Linac2 operation → BT

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