Intégration BT BTM BTP

22 Octobre 2015
PSB side

- Bending magnets BT.BHZ10 & BTM.BHZ10
- Quadrupoles BT.QNO40 & BT.QNO50
Deflexion center unchanged

- New support, new vacuum chamber
- Upstream and downstream (BTM) vacuum chambers to be modified
- New support, new vacuum chamber
- Only 6mm space between magnet and shielding
Magnets at the same position, new supports
- New QNO50 vacuum chamber $\phi 148$ (was $\phi 199$)
- Collision problem between QNO40 and DVT60
- Collision problem between QNO40 and BPM40 support
Solution 1

- Move QNO40 downstream by 70mm (or more)
  - Modify QNO40 vacuum chamber
- Move BPM40 downstream by 70mm (or more)
  - Modify BPM40 support
- Move QNO50 identically or keep it in same position
  - New QNO50 vacuum chamber ø148
Solution 2

- Magnets at the same position
- Keep actual QNO40 (built in 1996)
  - New QNO50 vacuum chamber ø148
Quadrupoles:
Change BTP.QNO20, BTP.QNO30, BTP.QNO50, BTP.QNO60, add BTP.Q35, BTP.Q55

- New support for QNO, DHZ, DVT, BPM
- New vacuum chambers
• Collision between magnet and shielding wall
  ➢ Modification of the shielding wall
• Collision between BTP.BPM20 and BTP.DVT30
  ➢ Move BPM.DVT30 downstream
• Collision between BTP.QNO60 and BTP.BPM30
  ➢ Move BTP.BPM30 downstream