



**ECR:**

**Installation of the 11 T Dipole Full  
Assembly in LHC P7 (HL-LHC WP11)  
LHC-LBH-EC-0001**

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# Comments

- All comments have been implemented
- Cryogenic modifications (L. Taviani): section completely reformulated, testing done
- BCs revised together with B. Delille
  
- Comment on flux jumps (J. Wenninger) studied in great detail by different WPs

## **Impact on beam dynamics (WP2):**

Emittance:

[https://indico.cern.ch/event/813823/contributions/3424661/attachments/1843702/3024721/flux\\_jumps\\_after\\_meas.pdf](https://indico.cern.ch/event/813823/contributions/3424661/attachments/1843702/3024721/flux_jumps_after_meas.pdf)

Orbit: [https://indico.cern.ch/event/823530/contributions/3443851/attachments/1859522/3055572/OnFluxJumps\\_v3.pdf](https://indico.cern.ch/event/823530/contributions/3443851/attachments/1859522/3055572/OnFluxJumps_v3.pdf)

## **Impact on quench detection and magnet protection (WP7):**

[https://indico.cern.ch/event/807162/contributions/3359326/attachments/1813335/2962804/Flux\\_jumps\\_presentation\\_QPS.pdf](https://indico.cern.ch/event/807162/contributions/3359326/attachments/1813335/2962804/Flux_jumps_presentation_QPS.pdf) and in the QH ECR [LHC-MBH-EC-0004](#) (reference for the 11 T ECR)

## **Impact on power converters (WP6B):**

[https://indico.cern.ch/event/803396/contributions/3340842/attachments/1813905/2963842/WP6B\\_Flux\\_Jumps\\_11T\\_New\\_Preliminary\\_Results\\_and\\_Simulations.pdf](https://indico.cern.ch/event/803396/contributions/3340842/attachments/1813905/2963842/WP6B_Flux_Jumps_11T_New_Preliminary_Results_and_Simulations.pdf) and M. Martino, P. Arpaia, S. Ierardi, Impact of flux jumps on high-precision powering of Nb<sub>3</sub>Sn superconducting magnets, IPAC2019, <https://ipac2019.vrws.de/papers/tupmp040.pdf>