CC: Impedance status (05/04/17)

E. Métral, B. Salvant, N. Biancacci and S. Antipov
Beam stability => OK!

- 2 CC/beam/IP side and using the low-impedance collimators

- DQW cavities => Further work has been done to reduce the impedance of a remaining HOM at 920 MHz by a factor ~ 20 (new table from 21-10-2016 used)

- Beam is stable for a current in the Landau octupoles (LOF) < ~ 300 A (with a maximum of 550 A), what ever the sign and even if the transverse tails would be cut down to ~ 3 σ
Reminder of situation in May 2016

- HOM of the DQW and RFD crab cavities and corresponding **single bunch** thresholds for the increase of octupole current over the machine baseline

- HOM of the DQW and RFD crab cavities and corresponding **coupled bunch** thresholds for the increase of octupole current over the machine baseline

Courtesy of N. Biancacci

Mode at 920 MHz => Recommendation to try and damp it
Beam-induced RF heating

Critical modes if hit a beam line
Beam-induced RF heating

Need the modes to be sufficiently far from a beam line (~ 5 MHz) to avoid kW of induced power