



Contribution ID: 13

Type: **not specified**

Heat load from beam

The circulating beam in the LHC generates heat loads which are dissipated onto the beam screen or in the cold masses of the elements operating at cryogenic temperature. The synchrotron radiation emitted by the proton beam is intercepted by the beam screens. These beam screens are also carrying the beam image current which dissipates power. Finally, the heat load induced by the electron cloud is also intercepted by the beam screen. The scattering of the protons onto the nucleus of the residual gas produce gerbs into the cold masses which dissipate heat load. The level of these heat loads are given for scenari which refer to nominal, ultimate and LHC luminosity upgrade.

Author: Dr BAGLIN, Vincent (CERN)

Presenter: Dr BAGLIN, Vincent (CERN)

Track Classification: Heat loads from beam