

**Study of the Power Deposition in the LHC Low-Beta Inner Triplet for a Nb<sub>3</sub>Sn Design,**  
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L. ROSSI, INFN, LASA Milan - In this paper the power deposited in the Nb<sub>3</sub>Sn coils of the inner triplet of the LHC low-beta insertions (for a second generation design) is studied as a function of the gradient and of the aperture. Starting from the reference "Yellow Book" case, different configurations: higher gradient in the same aperture or the same gradient in a wider aperture are investigated in order to get the best working conditions, using the better magnetic performance of the Nb<sub>3</sub>Sn respect to the NbTi. The temperature increase in the coils is then evaluated by ANSYS simulations to check the stability margin of the magnets.