Using Tevatron Magnets for HE-LHC or New Ring in LHC Tunnel

Henryk Piekarz

Abstract - Two injector accelerator options for HE-LHC of $p^+ - p^+$ collisions at 33 TeV cms energy are briefly outlined. One option is based on the Super-SPS (S-SPS) [1] accelerator in the SPS tunnel, and the other one is based on the LER (Low-Energy-Ring) [2] accelerator in the LHC tunnel. Expectations of performance of the main arc accelerator magnets considered for the construction of the S-SPS and of the LER accelerators are used to tentatively devise some selected properties of these accelerators as potential injectors to HE-LHC.

IEEE/CSC & ESAS EUROPEAN SUPERCONDUCTIVITY NEWS FORUM (ESNF), No. 16, April 2011
Paper selected from the Proceedings of the EuCARD - HE-LHC’10 AccNet Mini-Workshop on a "High Energy LHC." Reference No. ST264; Category 6.