

Preparation of the SPS as LHC Injector,
P. COLLIER, B. GODDARD, CERN - A major project for the preparation the SPS in its role as the final link in the injector chain to the LHC was launched one year ago. The major areas of work include the upgrade of the RF and the injection systems, together with the provision of a new extraction channel to serve ring 2 of the LHC. In addition, studies have been made on the ability of the SPS to meet the stringent transverse and longitudinal beam requirements of the LHC. This has lead to several other programmes of work including upgrades to the beam instrumentation, the transverse damper and a decision to undertake the shielding of over 800 inter-magnet pumping ports, in order to reduce the impedance of the machine. The planning of the project is influenced by the continued operation of LEP and the proposed new long base-line neutrino facility. In addition, during the machine upgrades, the SPS must continue to deliver high quality proton beams to the fixed-target experimental community and for an extensive range of experimental detector test beams. The major areas of work to complete the upgrade will be explained, together with the present status of the project and the future planning. A brief summary of the results of machine studies that have been undertaken will be given.