

CENTRAL BEAM AND CYCLE MANAGEMENT OF THE CERN LHC INJECTOR CHAIN

J.-C. Bau, CERN-Ps; M. Jonker, CERN-SI; J. Lewis, CERN-Ps

The efficient exploitation of the present CERN accelerator complex in the future, with new cycles to fill the LHC and possibly a dedicated neutrino cycle in addition to the actual fixed-target program, will require a rapid coordinated response to adapt to the changing user requests. This paper reviews the general sequencing problem and proposes some preliminary concepts and algorithms suitable for managing a network of accelerators. The benefits derived from the architecture that has already been implemented in the PS complex, since its start up in March 1999, will be described. The last accelerator in the injector chain, the SPS, is currently running fixed supercycles. Its event-based timing system will be integrated into the central control by the year 2001 in a way that is transparent to the SPS equipment.