

Synchrotron Radiation Effects at LEP2,
R. BAILEY, B. BALHAN, C. BOVET, B. GODDARD,
N. HILLERET, J.M. JIMENEZ, R. JUNG,
G. VON HOLTEY, CERN - With the increase of the LEP
beam energy, synchrotron radiation effects become ever
more important. Around the experiments, masks have been
successfully used to absorb the higher rates, and photon
backgrounds have not been a problem. Elsewhere around
the ring, however, the increased radiated power has
adversely affected various accelerator components; sections
of the vacuum chamber, electronics, cables and beam
instrumentation equipment have all suffered. Furthermore,
the use of wiggler magnets to control the bunch size has
given rise to local problems on nearby separator equipment.
These effects will be presented, together with the steps
taken to avoid further difficulties at the higher energies and
higher beam currents foreseen in future.