

SUMMARY OF THE AC DESIGN REPORT MEETING
IN THE 9TH AUGUST 1983

B. Williams presented a layout of the AC (lattice 83-08) in Hall 193. Before the next meeting it was decided to try to include the RF cavities, cooling tanks, the injection and transfer lines, and to indicate possible sextupole schemes.

W. Hardt described a variant lattice having zero dispersion regions at 3 and 9 o'clock, and somewhat reduced aperture requirements. It has optimum phase advance between the kicker and septum for AC to AA transfer, but has less straight section space at 12 and 6 o'clock. It was agreed to keep this variant warm, particularly because of its interest for transfer and also on account of the possibility that it might have a slightly better geometry. Z. Guo will study its stability before the next meeting, B. Williams will provide the modified layout and everyone working on the lattice 83-08 will look to see whether their problems become greater or less with the variant lattice.

L. Rinolfi presented the latest magnet design details and some layout drawings showing the disposition of quadrupoles with respect to dipoles. The magnetic interference between these elements will be examined before the next meeting.

S. Maury and R. Sherwood discussed injection and transfer schemes based on lattice 83-08. One special dipole and two special quadrupoles will be needed to permit injection. Transfer of a cooled beam is possible using a single kicker together with a fast bump (switched on during the time taken to withdraw the cooling electrodes). S. van der Meer asked if the variant lattice would permit transfer without a bump, however as the transfer septum is to be placed outside the 200π aperture, even with optimum phase advance between kicker and septum it would seem to be worthwhile to gain as much as one can by bumping the beam towards the septum, since in no case is the kicker solution easy.

The next meeting will concentrate on further details of the AC layout and will begin to look at possible interference between magnets, cooling systems, RF cavities, shielding requirements and the adjoining AA ring.