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PROPOSAL
TO STUDY ANTIPROTON-PROTON INTERACTIONS
AT 540 GEV CM ENERGY

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SUMMARY

We propose an experiment, the main purpose of which is to detect the production and decay of the $W^{\pm}$ and Z^0 bosons at the SPS $p\bar{p}$ facility. The design of the apparatus combines large solid angle coverage, with compactness and simplicity of operation. It includes electromagnetic and hadronic calorimetry in the central region and magnetic spectrometers in the forward and backward cones equipped for electron detection. In addition a small azimuthal wedge in the central region is instrumented to cover other aspects of $p\bar{p}$ collisions, such as a possible quark search, the study of large transverse momentum jets, etc...

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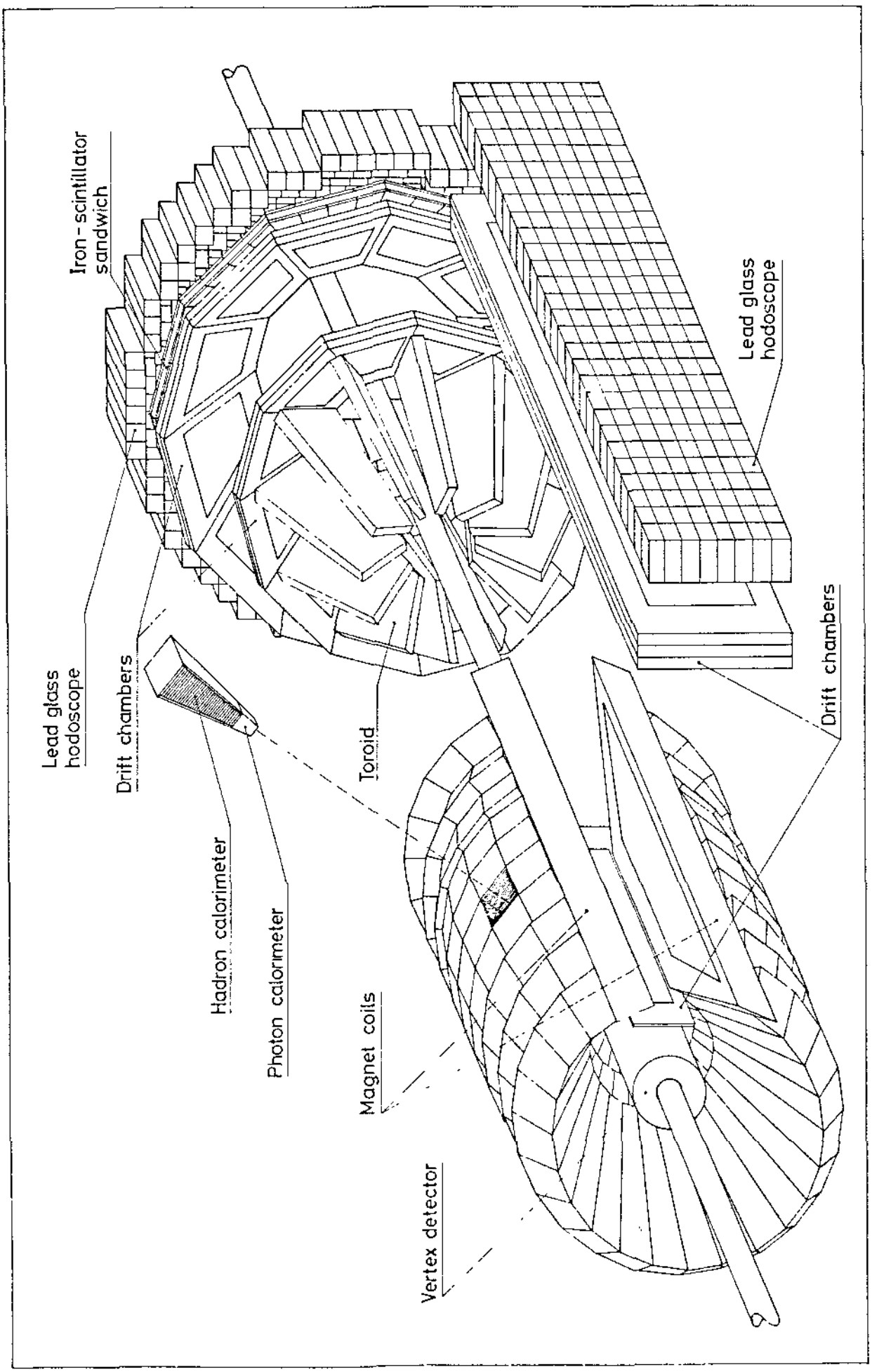
Iron-scintillator sandwich
Lead glass hodoscope
Drift chambers
Lead glass hodoscope
Drift chambers
Toroid
Hadron calorimeter
Photon calorimeter
Magnet coils
Vertex detector

Figure 4