

**Beam Position Monitoring System for the BEPC Storage Ring**, X.S. GENG, L. MA, P. SHI, K.R. YE, Beijing IHEP - BEPC is a 2.2 GeV electron positron collider. Thirty-two button-type beam position monitors (BPMs) are used for the position measurements of the colliding  $e^+e^-$  beams in the storage ring. The beam positions can be measured separately and simultaneously for  $e^+$  and  $e^-$  beams due to the wide-band processing electronics. The reliability of measurements is assured by the self-consistency check. The C program WINBPM running on a personal computer (PC) in the local station, controls the BPM processing electronics. The function, BPMSCAN of WINBPM loops forever, scanning each button of all BPMs, reading button voltage values, converting these values to x and y positions, and storing button voltage and orbit position values in memories on another PC, which serves as a communication server. These data can be accessed by the main computer in the BEPC central control room through network. The communication software relies on the TCP/IP socket library.