

**The New Beam Position Monitoring System of ELSA**, D. HUSMANN, J. KEIL, Universitaet Bonn, Physikalisches Institut; J. DIETRICH, R. MAIER, I. MOHOS, Forschungszentrum Juelich GmbH, Institut Fuer Kernphysik - A new beam position monitoring system for the Electron Stretcher Accelerator (ELSA) has been developed. ELSA is a continuous electron beam facility which is able to provide a nearly cw beam up to energies of 3.5 GeV. The high demands on the correction of the closed orbit for the acceleration of a polarized electron beam and the operation of ELSA as a partly dedicated synchrotron radiation source made the development necessary. The RF part of the new BPM system switches the four 500 MHz input signals from a button type monitor on a common signal path using a multiplexer. In addition to the digitalization of the signals a digital module is used for the control of the RF part and the communication with the host computer of the ELSA control system through a fast digital data link. Design issues and first results of the performance of the BPM system will be presented.