

**The Data-taking and Display System by VXI for Observing Circulating Beam Profile without Disturbance, E. KADOKURA, T. KAWAKUBO, KEK; T. ISHIDA, Mitsubishi -** The non-destructive beam profile monitor in KEK-PS uses the phenomena that a circulating beam in a synchrotron collides with residual molecules in the vacuum ring while producing positive ion and electron pairs with some probability. These positive ions are led to a Micro-Channel Plate by an external electric field and amplified to multi-collectors as an electric signal. The PS-booster ring has one horizontal (H) and one vertical (V) monitor, and the main ring has two Hs (at small and large dispersion position) and one V. The VME computer system was adopted for data-taking and display of the beam profile, however, the program is too complicated and the data-transfer time is too long. In order to improve these weak points, we change to the system of VXI and Labview. This system can show the mountain view of beam profiles, and time variation of the centre, size and momentum spread of the beam by very simple programme and with short transfer time.