

**Development of High Resolution Multibunch BPM, H. HAYANO, S. KASHIWAGI, KEK** - A multibunch Beam Position Monitor (BPM) for linear collider is necessary to measure each bunch position and to maintain the emittance in the main linac. Two kind of BPM are in study and development. One is a stripline BPM which has small inner diameter in combination with very fast front-end circuit and fast flash ADC circuit. The other BPM is microwave-cavity type which detects a multibunch signal as a superposition. Each bunch position is calculated by resolving the superpositioned signal. These BPMs will be tested using very low emittance multibunch beam extracted from ATF damping ring. The target resolution for each bunch position is 0.5 micron. The development and experiment status will be reported in detail.