

**Estimation of a Particle Density in Transverse Phase Space using a Multi-Wire Profile Monitor,**  
T. ADACHI, I. SAKAI, KEK - A beam extracted from a synchrotron is bounded by an ellipse determined by Twiss parameters in transverse phase space. If beam particles distribute uniformly along a circumference of the ellipse, a particle density in the phase space can be estimated using a multi-wire profile monitor installed in the transport line. This paper formulates such a procedure and describes some examples.