

A Beam Diagnostic System for Storage Rings,
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system described is based on a turn-by-turn signals, is
controlled by computer, uses various data processing,
and provides a wide range of beam diagnostic
measurements. During commissioning a storage ring,
the system can be used for closing the first turn. In
circulating beam mode, injected beam parameters,
betatron tune, closed orbit, and dispersion function are
measured. Other applications are beta function and
phase advance measurements, betatron motion
observations on phase space diagram, measurement of
low frequency beam vibrations. The system can be
completely tested and calibrated by its own means. A
calibration procedure, special features of the signal and
data processing are described. Some results of
applying such systems at VEPP-3, VEPP-4M, and
SIBERIA2 storage rings are presented.