

Test of a new Beam Position Monitor readout system for PETRA IV

For synchrotron light sources undergoing upgrades to 4th generation facilities, the importance of beam stability has grown substantially, i.e. tighter stability requirements over greater bandwidths over various timescales. From the electron beam diagnostic's point of view, Beam Position Monitors (BPMs) form the monitor system which provides the required data in order to keep the beam orbit stable to < 1 micrometer over one week of operation. The PETRA IV project at DESY aims to upgrade the present synchrotron radiation source PETRA III. For this new machine it is planned to install a new high resolution BPM system which consists of about 800 individual monitors. The idea of this project is to perform first test measurements at PETRA III with a prototype system consisting of 12 BPMs. Readout scripts and analyzing software will be developed in frame of this task (preferable programming language is Matlab).

Field

B4: Research on Accelerators

DESY Place

Hamburg

DESY Division

M

DESY Group

MDI

Special Qualifications:

First experience in programming, preferably with Matlab.

Primary author: KUBE, Gero (MDI (Diagnose & Instrumentierung))