

Plan of cavity BPM experiment during ATF2 construction

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ATF2 meeting

KEK nanoBPM-> IP-BPM

- Current status
 - resolution study using Inoue's cavity has finished
 - the resolution is mostly limited by signal intensity
 - also used for energy spectrometer study with BINP BPM
- Plan after coming summer at nanoBPM location
 - switch to IP-BPM study
 - replace Inoue's BPM with IP-BPM prototype
 - simplified mover system
 - it may be possible to leave one Inoue cavity
 - check basic characteristics of new cavity
 - prove 2nm resolution in a normal beam optics
 - make all channels of electronics
- Other location in the ext. line
 - put a bunch length monitor system
 - study alternative design for IP-BPM
 - low-Q option for multi-bunch separation

Q-BPM development

- Current status
 - ATF2 cavity + ATF2 electronics indirect resolution test
 - BINP cavity + ATF2 electronics direct resolution test
- Need to be tested
 - Overall test
 - online data processing
 - stability and monitoring system of the electronics
 - calibration scheme
 - ATF2 cavity will be in the beam line for a while
 - Reference cavity for ATF2 should be fabricated and tested