

Recent Run

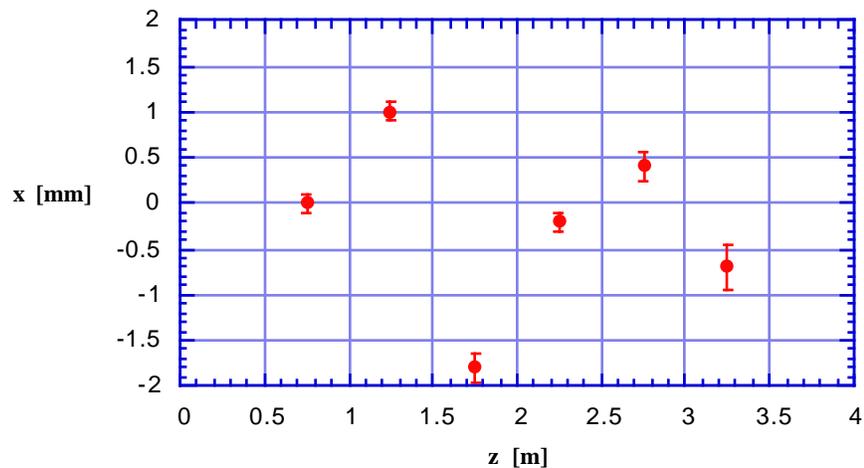
We have tried to propagate the beam closer to the undulator axis. Only the horizontal trajectory was studied. The following diagram will help to explain the data set sequence:



All the intraundulator magnets were set to zero. Magnets St1, and St2 were used to propagate the beam. PP9 BPM was used to monitor beam motion due to St2. Zero displacement corresponds to alignment laser position.

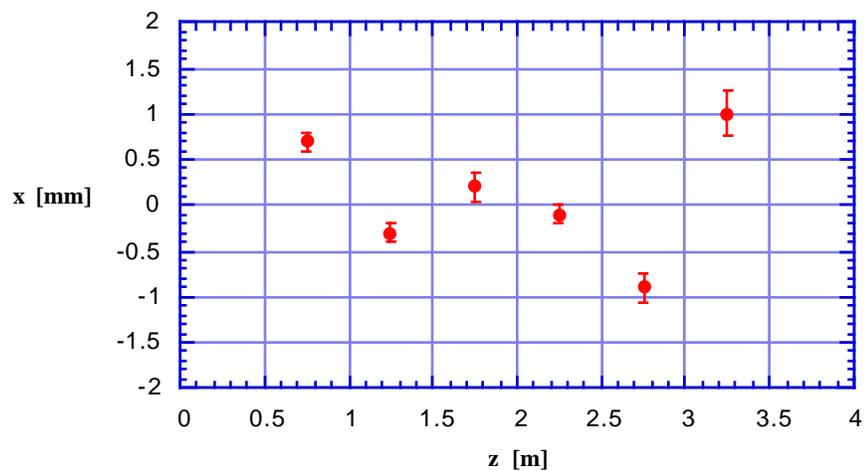
trace_1
St1 = 0

PP9 = -0.8 mm



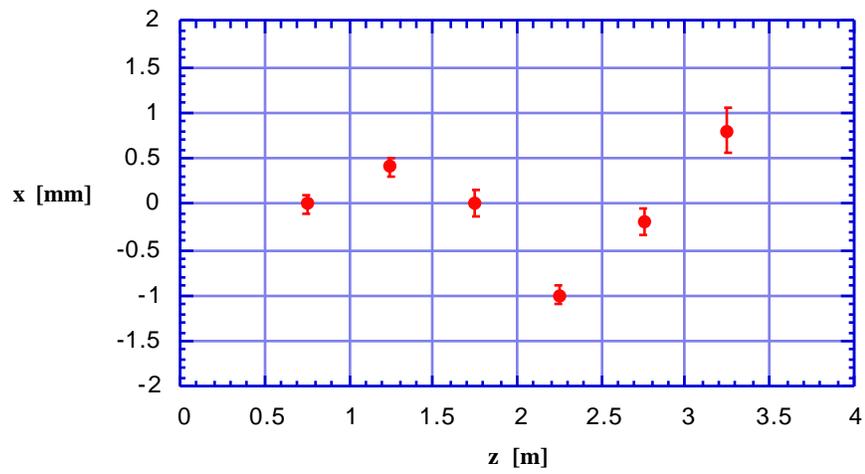
trace_2
St1 = 0

PP9 = -0.15 mm



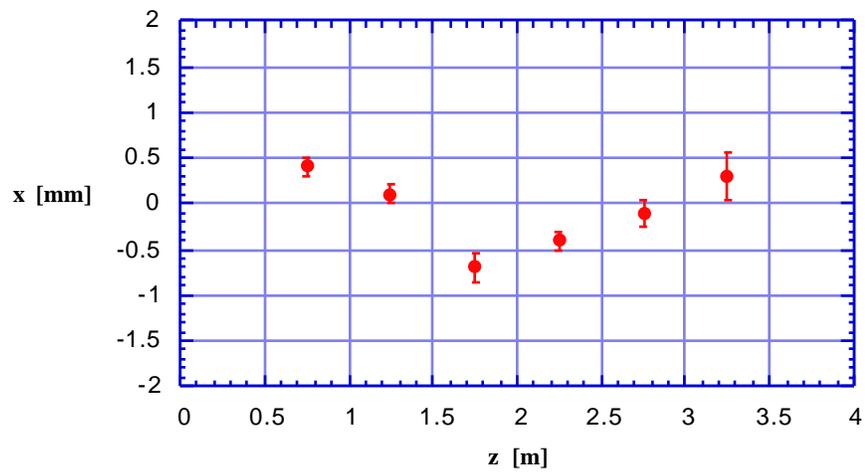
trace_3
St1 = 0

PP9 = 0.0 mm



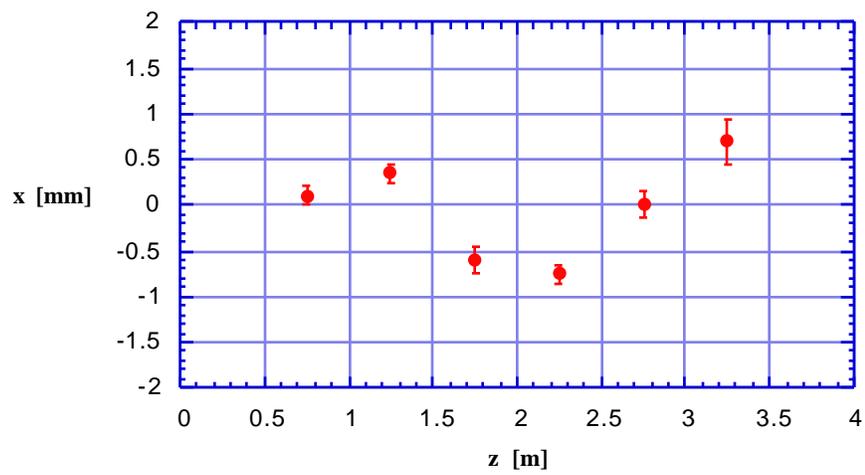
trace_4
St1 = 0

PP9 = 0.15 mm



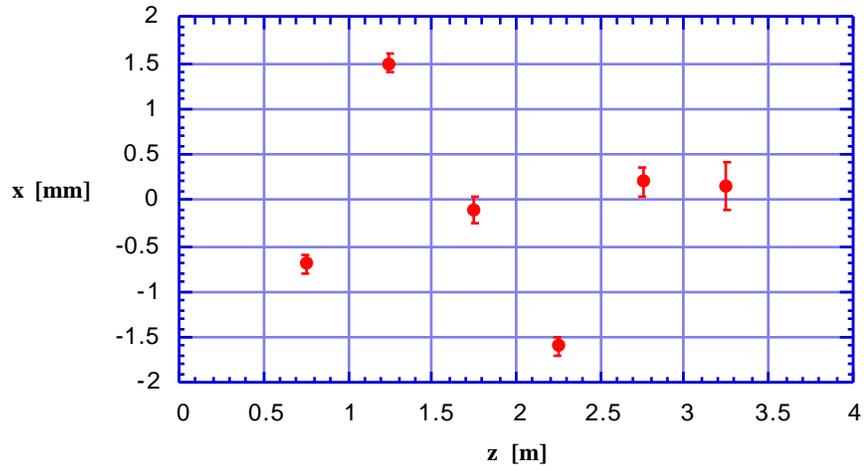
trace_5
St1 = 0

PP9 = 0.30 mm



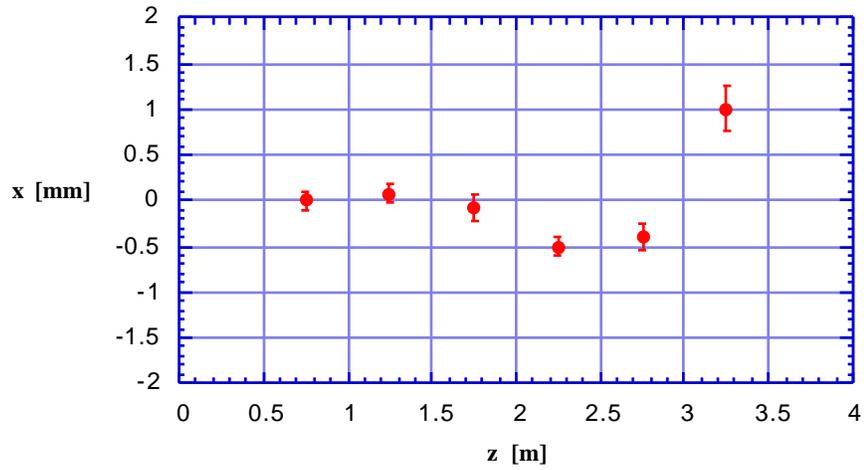
trace_6
St1 = 1.2 Amp

PP9 = 0.15 mm



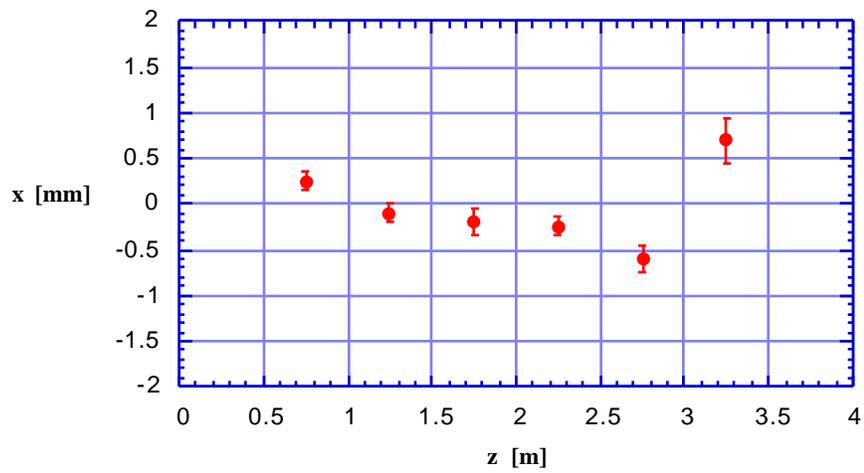
trace_7
St1 = 0 Amp

PP9 = 0.15 mm



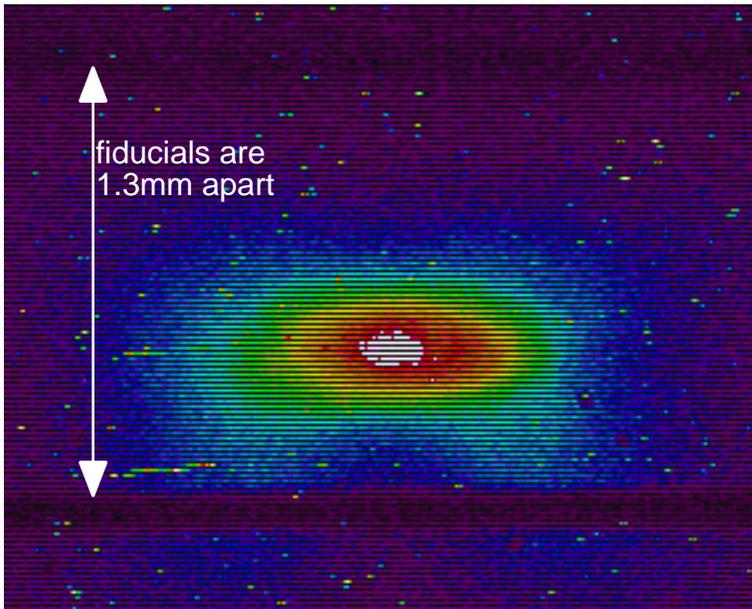
trace_8
St1 = -1.1 Amp

PP9 = 0.15 mm



One problem with the measurement/trajectory iteration is the time it takes to do. We are currently improving the Data Acquisition to try to speed up the iterations. The ATF has already implemented a trajectory correction for the HGHG experiment. We'll talk with Adnan about how they have implemented theirs.

Pop-in 5. The matching section quads were run at only 80% current compared to 100% for all earlier runs. This is due to the better upstream matching this run.



Also, with a combination polarizer/filter elimination of spontaneous is very efficient. The resolution for the BPMs will end up being around 10-15um/pixel. Polarizers/filters have been ordered for all BPMs and should arrive and be installed before the next run.

Spot at pop-in 9, downstream port using a foil/mirror assembly. Foil blocks undulator radiation and camera only sees OTR. No good calibration has been done for this BPM, but the spot size seems reasonable in shape and size.

