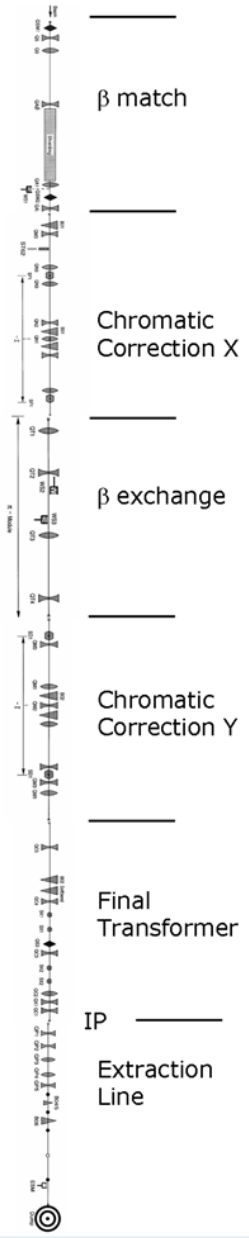
FFTB

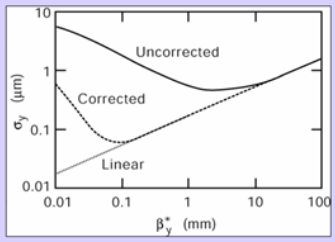
International Collaboration (America-Asia-Europe)

Beam demagnification factor better than NLC requirements

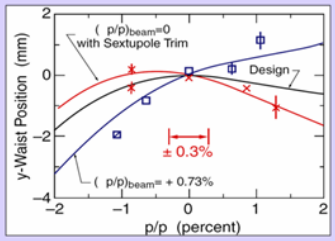
200m Final Focus prototype builds on the experience gained from the SLC



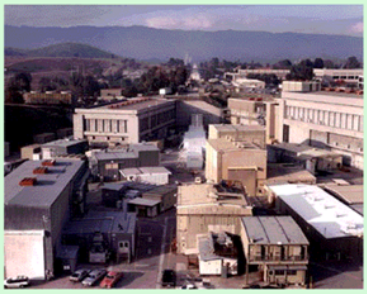
Predicted chromatic contribution to beam size

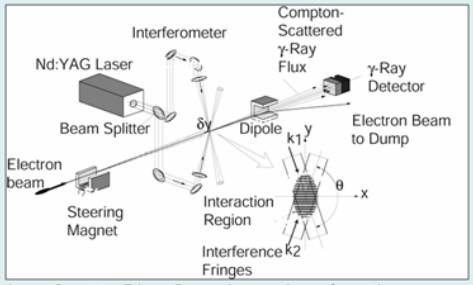


Chromaticity scan

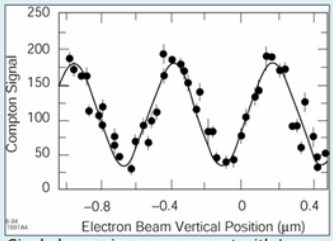


Looking West over SLAC research yard

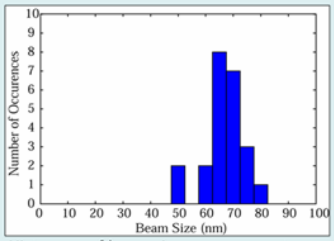




Laser Compton Fringe Beam size monitor schematic



Single beam size measurement with Laser Compton Fringe monitor



Histogram of beam size measurements

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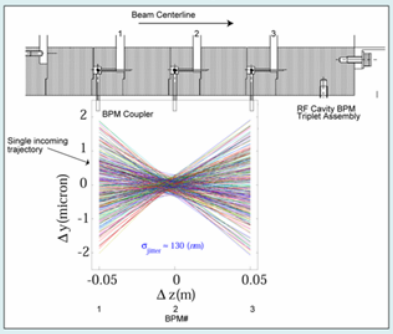
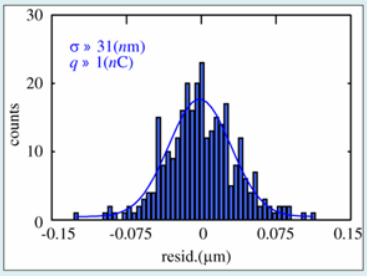
Triple RF Cavity BPM Assembly at IP



Collection of 100s of trajectories through the cavity BPMs at the IP with the natural incoming jitter



Histogram of the difference between the reading of BPM #2 and the line between BPMs 1 and 3

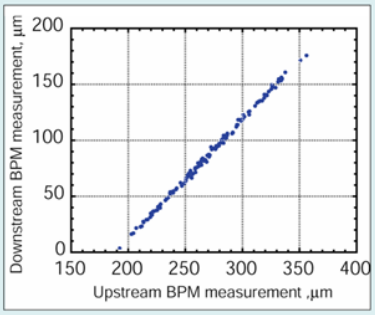
Beam Position measured to ±25 nm using cavity BPMs

Beam-based alignment to micron accuracy

Ultra-high resolution (30 nm) beam profile monitor development

Electromagnet movement control of 300 nm with nm-level stability

Temperature stabilized to 0.1°C



Data correlation of 2 nearby stripline BPMs. Resolution is 1.13 μm.