

Disrupted Beam Energy Measurements in Extraction Line

M. Woods
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Ideas/Issues

1. Undulators for synchrotron stripe magnets
 - beam trajectory unaffected
 - increase signal per unit area (S:B)
2. Pulsed Undulators
 - background subtraction
 - polarimeter measurement unaffected
3. Imaging
 - move image point from mid-chicane to detector plane
4. 1mrad Beam Stayclear
 - reduce to 0.75mrad?
 - instrument region from 0.75-1.5mrad (wide angle BSR detector)?
5. Energy acceptance
 - reduce from 80% to 50%?
 - instrument region from -50% to -80% (radiative Bhabhas)?
6. Dispersion at mid-chicane
 - increase from 20mm to 40mm?
7. Resolution requirements
 - don't need 10^{-4} per pulse; 10^{-4} per 100K pulses ok
 - time resolution very important to resolve 10^{-4} along train

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WISRD
(at IP image point)

