A Test in the FFTB of Undulator Based Positron Sources

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Undulator Options

Default:

\[ \lambda_u = 2.4 \text{ mm} \]
Aperture = 0.866 mm id
K = 0.17
Ec = 9.6 MeV @50 GeV
Ec = 8.4 MeV @46.6 GeV

Alternative:

\[ \lambda_u = 2.0 \text{ mm} \]
Aperture = 0.866 mm id
K = 0.1
Ec = 11.8 MeV @50 GeV
Ec = 10.2 MeV @46.6 GeV

NLC: \[ \lambda_u = 10.0 \text{ mm}, K = 1, Ec = 10.7 \text{ MeV} @150 \text{ GeV} \]
Undulator Collimator Layout, Ideal
Question: Is A1 absolutely necessary? May, maybe not. Also looking into fixing energy acceptance and HSB, SSB magnet current (a la meter relays)
A Question of Depolarization

Question: How much depolarization is expected from multiple scatter and ionization losses for the FFTB experiment? Can the C. Bouchiat paper be used as a guide? Note that depolarization due to bremsstrahlung is included in POL EGS4 (does anyone want the check this or propose a test case for simulation?). Who can do the literature search and estimate?