

# TCDI (Transfer Line Collimator) Concept

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current assumptions to allow rapid progress on 0-order technical design/specification

- location in TI2 and 8 : septum,  $90^\circ$  upstream H,V; optional mom.coll. beginning of the line (4 coll/line)
- foresee sufficient space ( 4 m long assumed to be safe )
- elliptical collimators, setting at  $5 \sigma$  based on  $3.5 \mu\text{m}$  normalized emittances and  $3 \times 10^{-4}$  rms ener. spread

--> MadX, optics tables, tracking with "black" collimators

extra 45/135 deg. collimators would double from 4 to 8 collimators / line; with elliptical collimators phase space already restricted so that gain less than  $\sqrt{2}$

several ideas on cost effective designs

- avoid moving in vacuum by 2 or 3 holes
- consider V-shaped for mom. collimator ..
- optimize (reduce) length ..



