

# *Progress in Beam Delivery System Studies*

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- ◆ Exploration of Nonlinear collimation system. Goals and work plan:
  - ◆ April 05: benchmarking of Placet, MAD and SAD for particle tracking in the context of the CLIC BDS.
  - ◆ The importance of chromatic aberrations coming from third order dispersion was shown. An optimization of the optics lattice is necessary.
  - ◆ May 05: a temporary optics for nonlinear energy collimation was developed, using two skew sextupoles and one vertical spoiler.
  - ◆ Its performance and shortcomings are being studied (some preliminary results will be presented at Nanobeam05 workshop, 17-21 October 05 and at the CLIC BDS Day, 22 November 05).

- ◆ Dec. 05: attempt to shorten the temporary design and to improve its performance.
- ◆ June 06: comparison collimation efficiency of the nonlinear system with the linear collimation system.
- ◆ Other related studies:
  - ◆ Simulate the application of the nonlinear collimation system to LHC. Optimization of this system to improve the cleaning efficiency, and comparison with the nominal LHC collimation system. Some conclusions will be drawn before March 06.