LINEAR COLLIDER STUDY

MACHINE ISSUES:

- ENERGY: 0.5, 1.0, 1.5 TeV
- LUMINOSITY: 50 fb^{-1}, 500 fb^{-1} @ $\sqrt{s}$ = 500 GeV
- POLARIZATION: e^-: 90% e^+: 0, 60%
  $\delta \mathbb{P} = 1\%$

DETECTOR:

- A COUPLE of PROPOSALS:
  LARGE (B = 3T; TPC)
  SMALL (B = 5T; Si TRACKER)
- VERTEXING: CCD or 'SMART PIXELS'
- CALORIMETRY: (TILES, SiW, ...)

TRY AVOIDING DETECTOR OPTIMIZATION!

MACHINE-DETECTOR ISSUES:

- MACHINE BACKGROUNDS
- BUNCH TIMING STRUCTURES

LINEAR COLLIDER STUDY

SIMULATION TOOLS

REGIONAL WEB PAGES CONTAIN LISTS & DOCS

http://tcwws.yale.edu/lc/

- GENERATORS
  - ⇝ A LOT OF THEM
  - ⇝ QUALITY NEEDS EVALUATION

- DETECTOR SIMULATION
  - ⇝ PARAMETRIZED MC ← PREFERRED
  - ⇝ FULL SIM