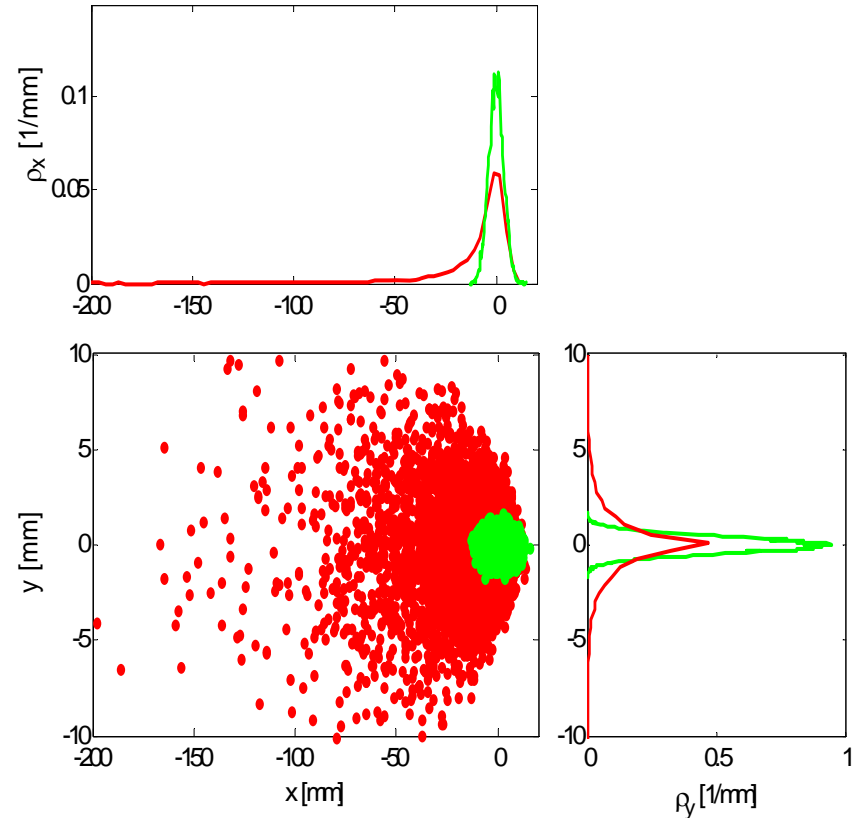# LET Update

PT

SLAC

Recent Activities

- Work Packages
- RTML Pulsed Extraction
- RTML Steering and Tuning
- System Integration
- LET Meeting @ SLAC, 11-13 December

Work Packages

- Submitted EOIs for several, including:
  - **RTML Pulsed Extraction line design**
  - **RTML compressor configurations**
  - **RTML Emittance tuning and steering**
    - Working with Cornell
  - **ATF2 and BDS**
    - Too many to list
    - Also too many for us to do – GDE will need to sort this out
  - **Start to End Simulations**
    - Code development (Lucretia, of course)

- Note: no ML WPs submitted at this time!

RTML Pulsed Extraction

- S. Seletskiy has optics designs for all 3 systems
  - **Post-DR – low energy spread @ 5 GeV**
  - **Post-BC1 – low or high energy spread @ 5 GeV**
  - **Post-BC2 – high energy spread @ 15 GeV**
- Remaining design issue: halo formation from nonlinear optics
  - **Strong bending + linear dispersion control**
  - **Many possible solutions, including collimators**
  - **Come to tomorrow's AP meeting here @ 10:30 to hear more!**

RTML Tuning and Steering

- S. Molloy starting work on the basic tuning of the full RTML
  - **Never been done for the Central Injector lattice**
  - **For now, using "canonical" misalignments (300 um quad offsets, etc)**
- J. Smith should be jumping in shortly as well
- Hope to have this done in ~1/2 year
- Then:
  - **Apply more realistic initial conditions**
  - **Study design modifications which are proposed for cost reduction etc**
  - **Study of feedback / feed-forward system requirements?**

System Integration

- M. Woodley has assembled the first "end to end" set of lattice files for ILC
  - **Lots of problems – inconsistencies, errors, etc.**
    - The usual!
  - **Plan to address these starting now**
    - "Punch list" of known problems posted on web
    - Obstacle: need identified "deck masters" for all areas
      - RTML: Cornell wants to do it but has $$ problems
      - ESOURCE, PSOURCE: same people work on both and may not have time to do both
    - Obstacle: DR still has no baseline lattice!
      - Reopened the lattice religious wars recently
    - Goal: complete, consistent, error-free RDR lattice set in late January 2008
- In parallel: studying use of Accelerator Markup Language in place of Extended Standard Input Format
  - **Goal of migrating to the new language (if we decide to do it) in ~30 months**

LET Meeting

- Third LET meeting will be held at SLAC
  - **December 11 – 13 2007 (Tu-Th)**
  - **Orange Room**
  - **K. Kubo and D. Schulte are the program committee**
    - Topics:
      - emittance preservation
      - code development
      - wakefields (joint with Chris A's Wake Fest meeting)
      - Error and misalignment models
      - Lattice files and file formats
  - **Naomi and I are the local organizers**

  - **Should be more fun than a barrel of monkeys on nitrous oxide**

"I'm the king of rock, there is none higher
 Sucker MC's should call me `Sire'
 To burn my kingdom, you must use fire
 I won't stop rockin' till I retire!"
                              -Run-DMC