WELCOME

Physics Landscapes Session

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FNAL Workshop, 16–18 September, 2004

Goals and Intentions This group has a dual-purpose.

1 How do the solutions to analysis problems for searches for new physics at the Tevatron generalize to the LHC?

- Estimating backgrounds is always based on a combination of simulation work and studies of control samples.
  - to what extent are the current techniques adequate for the LHC?
  - address this topology by topology: MET, multi-leptons, taus, high-ET photons, di-jet masses
- Examine new analysis ideas & studies currently under development at Tevatron:
  - articifial neural networks
  - specialized jet reconstruction
  - energy flow algorithms
  - signature-based searches

2 How will searches and measurements at the Tevatron impact theoretical predictions for the LHC?

- impact of Z' and W' searches on models with extended gauge symmetries or on models of extra dimensions?
- How will SUSY searches at the Tevatron further constrain MSSM parameter space (through squark, gluino, gaugino and Higgs searches, also Bs-¿mu mu, etc. – stop searches may play a special role here)?
- What are the ways in which Tevatron and LHC searches are complementary?
- impact of improved top and W masses on theories BSM?
- how Higgs limits (or signal) constrain theories BSM?

Hopes and Plans

⋆ The plan is to work on these questions over the next year.

⋆ Today's talks should give us the initial kick-off and motivation.

⋆ We will try to identify tasks and form groups to tackle them during this workshop and immediately afterward.

⋆ Send us your ideas and suggestions!