Tuesday August 7th , 2007

ALCPG 2007 Physics Working Group Charge to Conveners

Conveners of each working group will assemble a parallel session of presentations from theory drivers, detector R&D, simulation, and analysis that will develop, contrast, and highlight issues associated with the assigned set of experimental observables. Conveners will endeavor to have collaborative work begun before ALCPG07 so that recent progress can be presented at the meeting. As part of this process, conveners will identify "a few" candidate physics processes which will be treated as benchmark studies for their working groups. These signature based benchmark studies should consider cases with experimental sensitivity at both 500 GeV and 1000 GeV ILC operation.

Conveners are expected to assist us to develop a more focused charge for each working group and to coordinate with the other working groups on points of common interest. The focused charge should consider the following questions:

1. What does the physics require of the detector, in terms of coverage and capability. Are present detectors missing some important physics?

2. How does the detector performance tradeoff with physics output? What performance do we really need?

3. Is the technology "there" for the required detectors and performance? What needs more work?

In some cases common benchmark scenarios may emerge which can connect with existing benchmark studies. These signature driven parallel sessions at ALCPG07 will close with a common session that will discuss and identify critical benchmarks that depend on integrated detector performance and how detector/physics tradeoffs affect the integrated detector performance.

We would like to ask conveners to commit now to participate in the ALCPG07 meeting itself and to provide a summary presentation to the full ALCPG07 meeting that evaluates how well that working group met this charge and the prospects for pursuing signature based efforts as a model for better integrating subsequent experimental and theoretical effort. After the outcome of ALCPG07, we will evaluate whether this cross-cutting strategy has sufficient promise to continue standing working groups that will report progress at future ALCPG workshops.