Workplans: Luminosity Spectrum, Forward Region Re-Design

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Luminosity Spectrum

Current Status:

- Finished Differential Luminosity Spectrum Work at 3 TeV
  - Limited model: should be used by analyses to check the impact, no significant impact in smuon pair production benchmark
- Finish new draft of Note soon, then shorten it for publication

Possible Future Work:

- Summer Student will work on 350 GeV spectrum
- If other c.m.s. energies (1400 GeV,...) are also going to be used, have to apply fit to them.
- *Must* have analyses willing to check impact, or the goodness of reconstruction cannot be evaluated
- Systematic studies (Detector Resolutions, beam-energy spread uncertainties, binning,...), different observables, multi-peripheral photon events as background

Forward Region Re-Design

Future Plans:

- Change forward region to increase endcap calorimeter coverage
  - Study with relation to physics channels, that depend on jet energy resolution in forward direction (HHH, . . .)
- Change forward region to reduce impact of beam-induced backgrounds in calorimeter endcaps