

Simulation Results Planned for CDR

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To be reviewed by Richard Dubois and the IPO by 22 November 2002

I outline here the work we are currently planning to do with the simulations for CDR.

At CDR, we plan to show the following results from the Monte Carlo simulations:

1. Validation support for the test and calibration plans and procedures. In particular
 - a. Simulate the planned beam configurations (angles, energies, particle types) to demonstrate the statistics and running times will be adequate to achieve the required precision.
 - b. Simulate the internal alignment procedures using the sea-level muon flux on the ground and the cosmic ray flux on orbit, evaluating the time to accumulate sufficient statistics to meet the requirements.
 - c. Simulate the early on-orbit observation to align the LAT to the spacecraft GN&C system, evaluating the required time and estimating the resulting precision.
2. Update the LAT performance. Here, it will not be necessary to redo the full requirements checking (though we want to do this anyway!), but to display improvements and assess the impacts of any significant design changes since PDR.