

Tracker Upgrade Layout Studies

The present Inner Detector needs to be replaced for the Super LHC (sLHC) where a peak luminosity of 10^{35} is expected. The new tracker will likely be an all silicon detector: pixels near the interaction point to handle the high rates and strips further out. There are many considerations in optimizing the layout, e.g. high tracking efficiency, low fake track rates, good impact parameter resolution, etc. We are making studies using the [LCSIM](#) package whose ease of geometry definition is well suited to this task. There are 4 people from SLAC in this study.

Groups and Meetings

This work is coordinated with the ATLAS Upgrade Simulation group, which meets at 16:30 (CERN) on Thursday. Its agendas can be found at <http://indico.cern.ch/categoryDisplay.py?categId=1390>.

The Upgrade Task Force on Possible Inner Detector Layout (UTOPIA) meets roughly once every three weeks. Its agendas can be found at <http://indico.cern.ch/categoryDisplay.py?categId=1389>.

ATLAS Upgrade Week meetings can be found at <http://indico.cern.ch/categoryDisplay.py?categId=2056>.

Contacts

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