# Charge to ILD Software Workshop

Akiya Miyamoto 27-January-2010 LLR , Ecole polytechnique ILD software pre-meeting

#### Where we are now

- ILD LOI has been validated last autumn
- We are requested by RD to perform detailed design study and write a report by 2012.
- RD's request includes
  - Develop a simulation model including faults and limitations
  - ◆ Simulate and analyze updated benchmark processes incl. 1TeV.
- In order to meet this request, we need to do
  - software updates/developments
  - optimize detector model
  - MC production and physics study

# timeline for ILD software development

| tO       | hand in DBD                                                                                                                                              |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 month  | Analysis and Writing                                                                                                                                     |
| t0 - 5m  | Monte Carlo production finished                                                                                                                          |
| 5 month  | Grid Production                                                                                                                                          |
| t0 -10m  | start Monte Carlo production                                                                                                                             |
| 3 month  | Test, Debug and release ILDsoft                                                                                                                          |
| t0-13m   | freeze ILDsoft development                                                                                                                               |
| >1 montl | implement baseline in simulation                                                                                                                         |
| t0-x     | evaluate technology options develop tracking package develop geometry LCIOv2 improve simulation realism improve reconstruction study machine backgrounds |

end of 2012

13 month

14-26 month

13 month prior to hand in of **DBD** are fixed

end of 2011

depending on actual t0 we have ~1-2 years for software developments... e.g. t0=Oct 2012 => 23 months

from now!

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## Subjects today

- Now: beginning of software development period
- Goal of this meeting is to clarify
  - what software tools has to be prepared/developed
  - what level of realism software tools should have
  - what features software tools should have
  - who is working on what

### Program

- Morning sessions
  - Status and plan of simulators:
    - We think this is the central part of activity in coming months, essentially each sub-detector developpers are invited.
- Afternoon
  - ◆ Reconstruction and core software tools are discussed.
- Request to all speakers
  - ◆ This meeting is to discuss technical details among software experts
  - Please leave half of allocated time for discussion
- We plan to report the outcome of this meeting in the main ILD WS for iteration with hardware experts.