

# Geant4 Oversight Board Meeting

IST Lisbon, 12 October 2006

- Welcome and introduction of participants: Mario Pimenta (LIP/TRIUMF), Vladimir Grichine (Lebedev), Richard Mount (SLAC), François Le Diberder (IN2P3), Michael Doser (CERN) [by phone part time], Petteri Nieminen (ESA, Chair), John Apostolakis (ex officio - spokesperson), Makoto Asai (ex-officio – deputy spokesperson)
  
- Report from the SB / Collaboration workshop discussions:
  - CERN meeting dedicated to G4 physics validation work and verification of models has been held. Hadronic models were in focus of this and certain physics gaps have been identified in the 5-8 GeV regime. Another meeting was also held, with a part of the SB discussing internal Geant4 collaboration and communication issues.
  - Several other meetings were mentioned: Among these was a hadronic shower workshop where MARS, GEANT4, PHITS, FLUKA, etc. were represented. As a result of this meeting, areas of improvement have been identified.
  - June release 8.1 + follow-on patch
  - GEANT4 licence was included for the first time in the June release. Some feedback from users has been received, but this is mostly positive and nothing drastic has been identified.
  - Use of external data libraries have been discussed in the current workshop; this concerning in particular neutron data libraries and some sensitive applications.
  
- GEANT4 review.
  - The main review topics to be included are: Precision and performance of the physics e.g. in hadron showers; speed of the code; and generally other aspects of the user experience, e.g. concerning physics lists. Issues related to the Collaboration structure and management, etc., will not feature this time, but can be addressed at a later review.
  - The review should be properly prepared in advance, and this should not be based on a one-time session only. Reviewers and developers should have the opportunity to be involved in a two-way interaction sufficiently in advance of the review itself.
  - While realistic time is needed for the preparation of the review, this should also not be too late, especially regarding the LHC schedule. Time is also needed to address the issues raised from the review afterwards. On the other hand it is preferable to avoid the GEANT4 release periods. With these constraints, March-April 2007 is therefore probably the best option, but availability of the reviewers will be more broadly checked for the March-June period.

- Mixture of experts and major users would be good for the review. Possible candidates for Geant4 Review Committee were discussed. The following list identifies the first choices of the OB (\*\*\*) , together with second (\*\*) and third choices (\*).
  - Guy Wormser \*\* [possibly chair, 2<sup>nd</sup> option]  
[Guy.Wormser@lal.in2p3.fr](mailto:Guy.Wormser@lal.in2p3.fr)
  - Abi Soffer \*  
[abi@slac.stanford.edu](mailto:abi@slac.stanford.edu)
  - Irène Buvat \*\*\*  
[buvat@imed.jussieu.fr](mailto:buvat@imed.jussieu.fr)
  - Nobu Katayama (Belle Collaboration, KEK, Japan) \*\*\*  
[Nobu.Katayama@kek.jp](mailto:Nobu.Katayama@kek.jp)
  - Patricia McBride (FNAL, U.S.) \*\*  
[mcbride@fnal.gov](mailto:mcbride@fnal.gov)
  - Charles C. Young (BaBar, LHC, SLAC, U.S.) \*  
[young@slac.stanford.edu](mailto:young@slac.stanford.edu)
  - Sayed Rokni (SLAC Head of Health and Safety Office) \*\*\*
  - Frank Gaede (DESY, ILC Simulation community) \*\*\*  
[Frank.Gaede@desy.de](mailto:Frank.Gaede@desy.de)
  - [ATLAS Shower Shape person, placeholder (Fabiola Ganotti? Possibly chair)] \*\*\*
  - [Space person, e.g. Robert Reed]
  - Horst Stoecker, Frankfurt University [hadronics]
  - Irena Gudowska (Karolinska Institut, Sweden) \*  
[Irena.Gudowska@ki.se](mailto:Irena.Gudowska@ki.se)
  - Lembit Sihver (Chalmers University of Technology, Sweden) \*\*\*  
[sihver@chalmers.se](mailto:sihver@chalmers.se)

→ ACTION ON ALL OB MEMBERS: DISCUSS WITH THE PERSONS CONSIDERED AS FIRST CANDIDATES (\*\*\*) TO VERIFY THEIR AVAILABILITY.

Finally, the question of who will pay the trips and missions of the various Reviewers was raised. Possibility for funding is to be clarified.

- AOB: List of Oversight Board representatives should be added on the Geant4 homepage.
- Next OB meeting: Provisionally, December 14, 2006 (Thursday) was fixed for a telecon meeting to discuss the progress on the review. Preference for the afternoon, around 15.00 CET, was noted.