Future use of OPAL data

This memo concerns the future use of OPAL data for publications including conference contributions. The OPAL collaboration will at some point move from its present "standard" mode of operation to an "archive" mode. We discuss here the OPAL data and its use after this transition.

The archiving of OPAL data will be achieved using the same data format (compressed DST) that is presently used for standard analyses. The full data recorded from 1990 to 2000 should remain available for use, together with the corresponding full set of simulated events and the analysis software. Simulated samples are available for standard processes and for some signals of new physics. In other words the OPAL long-term archived data will be exactly the same as the data analysed by the experiment for official OPAL publications. It should also remain possible to pass events from new event generators (4-vectors) through the detector simulation (GOPAL) and event reconstruction (ROPE).

Acceptable use of OPAL data

The collaboration considers that suitable use of the archived data would be, for example, a reanalysis of event shape data using new QCD calculations, possibly combining OPAL data and future linear collider data at higher centre-of-mass energy. Searches based on new theories should also be possible.

It would generally be inappropriate to try to repeat precise analyses with complicated systematic uncertainties such as electroweak measurements. These measurements have deliberately been made in as model-independent a way as possible. New theories should be tested against the published observables, such as cross-sections, differential cross-sections and forward-backward asymmetries. There should be no need to reanalyse the data from DST level.

Availability of OPAL data in future

The date for OPAL's transition to archive mode has not yet been fixed. To oversee use of the OPAL data after the transition, we will establish a "long-term OPAL editorial board" (long-term EB), to give technical assistance to people using the data, and to review publications. We expect any group wishing to use the OPAL data archive to seek the approval of the long-term EB. A group wishing to use the data should normally include former members of the collaboration. If this is not the case, but the long-term EB is convinced by the proposed analysis, then they will select one or two EB members to participate.

Authorship of publications using OPAL data

The OPAL transition to archive mode may not be irreversible, in that the long-term EB may decide that certain papers coming soon after the transition should be treated as standard OPAL publications. Examples would be the publication of a student's PhD analysis using OPAL data, or any analysis that was simply a natural extension of ongoing standard OPAL work.

Papers coming on a longer timescale, and in particular those including non-OPAL participants, will be handled by the long-term EB using guidelines based on the present standard guidelines. The list of authors of such an "archive data" publication should include the names of members of the long-term EB who have made a significant contribution, and should include "The OPAL Collaboration", with a footnote giving a reference to the most recent standard OPAL publication for the names. It would not be necessary to include all the names of the collaboration members.

February 2004