

Godparent Committees for the Large-Area Psec Photo-Detector Program

1 Introduction

In the construction of the Collider Detector at Fermilab (CDF) we invented the idea of internal hardware review committees (a.k.a ‘Godparent Committees’) to monitor the progress towards the goals and schedule of the individual subsystems. The godparent committee reports were treated seriously, and in a number of cases made critical changes in designs and direction for various subsystems; in two cases the godparent committees forced a complete change in design for a subsystem. The godparent system worked very well in identifying incipient problems, blind alleys, and in averting disasters.

One reason it worked well is that the committees were formed from inside the collaboration, and hence had a clear view and subtle knowledge. The godparent committees thus provide an essential communications line up to the management from down inside the collaboration, where the knowledge and responsibility actually reside. In LAPPD we have expanded this model by adding outside reviewers, including critics.

The committees worked well in the R&D phase of LAPPD.

2 Organization

There are four godparent committees, one for each of the major sub-areas: a) Electronics and Integration, b) Hermetic Packaging, c) Micro-channel Plates, and d) Theory-based Photo-cathodes. The committees are small, and consist of collaborators who are not directly responsible for the sub-area, plus several outside experts. We may add other members as needed or as requested by the DOE or Argonne. The committees report to the Executive Committee.

There is one substantial change from the initial three years, due to the convergence of the photocathode and packaging areas for tube construction. There seem now to be two separate areas: 1) integrating the SSL and the Burle recipes for bialkali cathodes into the tube assembly, which now would be in the purview of the Hermetic Packaging Committee, and 2) next-generation cathode R&D, included the BNL/UC/ANL/WashU/Berkeley efforts. We have thus changed the name of the *Photocathode* Committee to *Theory-Based Photocathodes*, and given it the charge to review the opportunities and work in cathode R&D beyond the recipes.

The co-Chairs of the committee schedule the meetings and agendas, typically two per year or as needed. The committee is expected to issue a short summary of recommendations. We have found that it has been very productive to have the proponents of the sub-areas make and post a written response to the recommendations. In addition, a co-Chair will be expected to give a report at collaboration meetings.

3 Charge

The charge to the godparent committees is:

To monitor progress, identify problems, and provide wise advice and support to those working in the sub-area.