

Other experiments

OLYMPUS

The PRC acknowledges the continued progress of the OLYMPUS collaboration since the last PRC meeting. The PRC recognises that the Olympus manpower is very limited and that the MIT group together with several single individuals are the remaining force behind the OLYMPUS data analysis. The collaboration made quite some progress to understand in detail several of the points that have been worrying the PRC for quite some time. This brings the collaboration much closer to releasing a preliminary result in the next year.

The progress includes

- the analysis of 80% of the Olympus dataset;
- the achievement of good agreement between the luminosity measurement of the 12° MWPC and the slow control luminosity;
- a further improvement of the calibration and the description of the TOF and tracking chambers;
- the achievement of reasonably good agreement for the MC–data comparison.

The PRC has still some remaining concerns:

- There is still no understanding why the symmetric Moeller/Bhabha detector does not provide the best luminosity measurement in the experiment. The PRC feels it is extremely important to clarify the reason for this mismatch.
- There is unfortunately not yet a detailed idea what type of systematic precision can be achieved at the end.

The PRC awaits with eagerness the first results.

ALPS II

The science case for ALPS II is largely unchanged. We believe there has been a slowly increasing interest in axion-like-particles (ALPs) over the last several years, but the weak astrophysical hints of ALPs remain weak. The ALPS II group is recognised worldwide by the ALP community as one of the “flagship” ALP searches.

On the technical side: The cavity mirrors are a problem, evidenced by their poor finesse. There is reason to think this is due to a surface-roughness problem. New mirrors are on order.

The risk of leakage through the filter causing excess noise counts would be significantly reduced by using the heterodyne receiver being developed by the University of Florida group. The new receiver is therefore a welcome addition.