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Session 16: Global parameter estimation, statistics and detector development

A review of progress in R&D for neutrino detectors

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Nowadays, there are many projects of the next generation large scale neutrino experiments which aim at finding the CP violating phase in the PMNS matrix, probing the neutrino mass hierarchy, detecting ultra high energy cosmic neutrinos and so on.

These experiments plan to discover the rare effects and study them by measuring neutrino interactions precisely with large detectors. Toward these goals, a lot of R&D activities for novel (near) detectors are also proposed in order to reduce systematic uncertainties.

In this talk, I shall review broad topics of R&D activities for large neutrino detectors and novel (near) detectors, with a special emphasis on emulsion techniques.