



Tuesday 5 July, 11:00 – 11:20

Session 6: Neutrino interactions

Theoretical challenges in neutrino scattering studies

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New and more precise measurements of neutrino cross sections have renewed interest in a better understanding of electroweak interactions on nucleons and nuclei. This effort is crucial to achieving the precision goals of the neutrino oscillation program, making new discoveries, like the CP violation in the leptonic sector, possible. I review the recent progress in the physics of neutrino cross sections, putting emphasis on the open questions that arise in the comparison with new experimental data. In particular, I will present some details about the theoretical development in the description of (anti)neutrino-induced quasielastic (QE) scattering and the role of multi-nucleon QE-like mechanisms. I will also cover pion production in nucleons and nuclei.