Contribution ID : **72** Type : **Plenary/section talk**

Coherent elastic neutrino-nucleus scattering – the newly observed type of neutrino interaction.

Wednesday, 4 October 2017 13:00 (30)

This neutral current neutrino interaction with atomic nucleus (CENNS) was predicted in the Standard Model 43 years ago. It takes place when the momentum transfer from neutrino to atomic nucleus is small and neutrino interacts with the nucleus as a whole. This interaction hasn't been observed for the long time after prediction because of the necessity to detect the tiny energy of a recoil nucleus in a massive target. The talk presents a review of the experimental technique for observation of the CENNS including the program of the COHERENT collaboration where it has been discovered recently. Future plans on study of this process and its use for nuclear reactor monitoring are discussed.

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