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Minerva Experiment

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The MINERvA collaboration has made important progress in the NovA (ME) era with analyses in both neutrino and anti-neutrino modes with up to 12.1x1020 and 12.4x1020 protons on target respectively. Three of these high-statistics analyses, of special importance for oscillation experiments like DUNE, NOvA and T2K, are near completion and highlighted in this presentation. The muon-neutrino 3D CC Quasi-Elastic analysis off CH, in bins of P||μ, Ptμ and visible energy, is the first of its kind in the few GeV region and has looked in detail at kinematic regions previously unavailable comparing MINERvA data against several models.
The muon anti-neutrino 2D CC Quasi-Elastic analysis off CH, is the anti-neutrino complement of the already published neutrino result. It is being compared to the same models as the neutrino sample and will be an important probe at high Q2 where models fail to describe the data. A measurement of the muon neutrino CC Coherent Production of Pions is being made from C, CH, Fe
and Pb. It is the first simultaneous measurement of more than one target, and the first measurement from pure C, Fe and Pb. The latter being the heaviest nucleus where the interaction has been observed.

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