

YP talk: Simulation and commissioning of the full setup of the WAGASCI experiment at J-PARC

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WAGASCI is an experiment to measure neutrino interactions at the J-PARC neutrino beam line. The central WAGASCI module has a 3-dimensional grid target structure made of scintillator and water. The module is surrounded on either side by two side muon range detectors (MRD) and downstream by a magnetized MRD called Baby MIND. Baby MIND consists of iron-core magnet planes, with a magnetic field strength of 1.5 T, and scintillator tracking planes. It enables a reduction of the neutrino background for measurements with antineutrinos and vice versa. From March to May 2018, Baby MIND was commissioned with the J-PARC antineutrino beam. The physics run with the full WAGASCI setup is planned for 2019. Simulation work is ongoing to optimize the detector setup. In this talk, preliminary results from the Baby MIND commissioning will be reported, together with simulation studies of the full WAGASCI setup.

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