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Detection of the atmospheric neutrinos in the NOvA experiment

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The NOvA experiment, aimed at studying the neutrino oscillations in the muon neutrino beam, uses two segmented liquid scintillation detectors, with masses of 300 tons and 14 kilotons, respectively. The large size and high segmentation of the NOvA detectors, as well as a flexible system of software triggers and data acquisition, make it possible to solve additional physical problems, in particular, to detect and study the atmospheric neutrino flux in NOvA detectors.

This report presents the technique for detecting and simulating events from interactions of the atmospheric neutrinos in the far detector of the NOvA experiment.

Primary author: IVANOVA, Alexandra (JINR)
Co-authors: SHESHUKOV, Andrey (JINR); SAMOYLOV, Oleg (JINR)
Presenter: IVANOVA, Alexandra (JINR)
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