



Contribution ID: 52

Type: **not specified**

## **Simulation studies for large scale acoustic neutrino detectors**

*Friday 15 June 2018 09:40 (20 minutes)*

The AMADEUS system was a submarine acoustic array operating from 2008 until 2015 as a part of the ANTARES neutrino telescope in the Mediterranean Sea. Its design goal was to investigate the feasibility of acoustic neutrino detection in the deep sea. The data taken during its eight years of operation provide a wealth of information for setting up realistic simulations of future acoustic neutrino detectors. Using in addition simulations of neutrino interactions in water, effective volumes of various potential acoustic neutrino detector designs were investigated and methods for suppressing background and reconstructing energy and direction of incoming neutrinos were developed. The talk will give an overview of the latest results.

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**Session Classification:** Future and perspectives