

# A Magnetized Muon Range Detector for TITUS

*Saturday 31 January 2015 09:30 (20 minutes)*

We clarify the design of the magnetized Muon Range Detector (MRD) for the proposed TITUS intermediate detector. Such an magnetized MRD would contain muons from interactions in the water Cherenkov detector, and would lend an extra advantage to the detector - the capacity to distinguish neutrino and antineutrino events, through the observation of the muon charge. We address both practical considerations and the foreseen event reconstruction performance.

## **Length (min.) request (including discussion time)**

20

**Primary author:** RAYNER, Mark (Université de Genève)

**Presenter:** RAYNER, Mark (Université de Genève)

**Session Classification:** Near Detectors

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