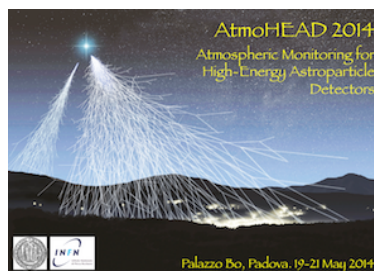


# AtmoHEAD 2014: <br> Atmospheric Monitoring for High Energy AstroParticle Detectors



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## The EUSO-TurLab project

*Tuesday, 20 May 2014 18:20 (25 minutes)*

The TurLab facility is a laboratory, equipped with a rotating tank, located at the Physics Department of the University of Torino.

It consists of a 5 m diameter tank, which is used for fluido-dynamics studies. The system has been thought mainly for studying problems where system rotation plays a key role in the fluid behaviour, for example in atmospheric and oceanic flows at different scales.

The tank can be filled with different fluids of variable density allowing studies in stratified conditions too; sea waves (infinite fetch) can be reproduced and analysed. The tank can be also used to simulate parts of the terrestrial surface with optical characteristics of different environments (snow, grass, ocean, land,..... fogs and clouds can be simulated as well).

The tank is located in an extremely dark place, therefore the light intensity can be controlled artificially.

The EUSO-TurLab project is an on-going activity to reproduce artificially atmospheric and luminous situations that JEM-EUSO will encounter on its orbits around the Earth. This is suitable to test the detector performance as well as the trigger system.

In this talk, a review of the on-going tests related to the JEM-EUSO mission will be presented.

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