



ID de Contribution: 41

Type: **Pitch**

AstroAnt: astronomical analyses of ANTARES neutrino telescope data in python

lundi 27 juillet 2020 10:20 (5 minutes)

In astronomy it is a common task for a telescope/detector team to provide a **software pipeline** for

- reducing data to a certain region on the sky,
- applying the most recent calibration knowledge,
- and estimating signal probabilities and signal background.

Using this pipeline enables the astrophysicist **to quickly start analyzing and interpreting the data** in a scientific context. In particular she or he does not need to have an in-depth knowledge of the telescope and signal detection process.

Neutrino astroparticle physics and astronomy are new and fast emerging fields. Currently, the work around prototype and neutrino telescopes being built concentrates on understanding, improving, and developing technologies. Thus, only limited software pipelines for astrophysical purposes as described above exist.

I will present highlights of the software pipeline *AstroAnt* developed for the ANTARES neutrino telescope. This pipeline can serve as a prototype for the next-generation KM3NeT neutrino telescope currently being built, in order to **kick off astronomical analyses in the next years**.

Auteur principal: BISSINGER, Matthias (ECAP - University of Erlangen)

Orateur: BISSINGER, Matthias (ECAP - University of Erlangen)

Classification de Session: Software Pitches