



**The Astroparticle Physics Conference** 34<sup>th</sup> International Cosmic Ray Conference July 30 - August 6, 2015 The Hague, The Netherlands

Contribution ID: 651

Type: Poster contribution

## Revised absolute amplitude calibration of the LOPES experiment

Saturday 1 August 2015 15:30 (1 hour)

One of the main aims of the LOPES experiment was the evaluation of the absolute amplitude of the radio signal of air showers. This is of special interest since the radio technique offers the possibility for an independent and highly precise determination of the energy scale of cosmic rays on the basis of signal predictions from first principles. For the calibration of the amplitude measured by LOPES we used an external source. Previous comparisons of LOPES measurements and simulations of the radio signal predicted by CoREAS revealed a discrepancy in the order of a factor of two. A re-measurement of the reference calibration source, now performed for the free field, was recently done by the manufacturer. These updated calibration values lead to a lowering of the reconstructed electric field measured by LOPES and therefore a significantly better agreement with the simulations. We will discuss the updated calibration and its impact on the LOPES analysis results.

## Collaboration

LOPES

## Registration number following "ICRC2015-I/"

326

Authors: LINK, Katrin (Karlsruhe Institute of Technology); HUEGE, Tim (KIT)
Presenter: HUEGE, Tim (KIT)
Session Classification: Poster 2 CR

Track Classification: CR-EX