

Supervisors: Ralph Engel, Tim Huege New PhD Student: Sara Martinelli

Hallo Zusammen!

¡Hola a todo el mundo!

HIRSAP Workshop November 2020

New PhD Student



Master's Thesis

KIT hybrid engineering array (Campus Nord)



Goal

Development of radio analysis techniques for EAS measurements

Acquired knowledge

FFTs, beam-forming method, offline digital filtering, noise and RFI peaks suppression...





15



candidate CR event Large scale analysis exploiting information

3

PhD Studies (DDAp KIT - UNSAM)



Sketch of the Radio Detector Upgrade of AugerPrime (https://www.auger.org/index.php/observatory/augerprime)

Long-term GOALS

- Radio-data analysis (RD Upgrade of Auger)
 - Mass composition
 - Xmax
 - Primary energy ...
- Hybrid analysis

(e.g. electromagnetic energy vs. muon component)

Short-term GOAL

To improve the 3D E-field vector reconstruction

E-field Reconstruction related issues



¡Muchas Gracias!

Vielen Dank!