

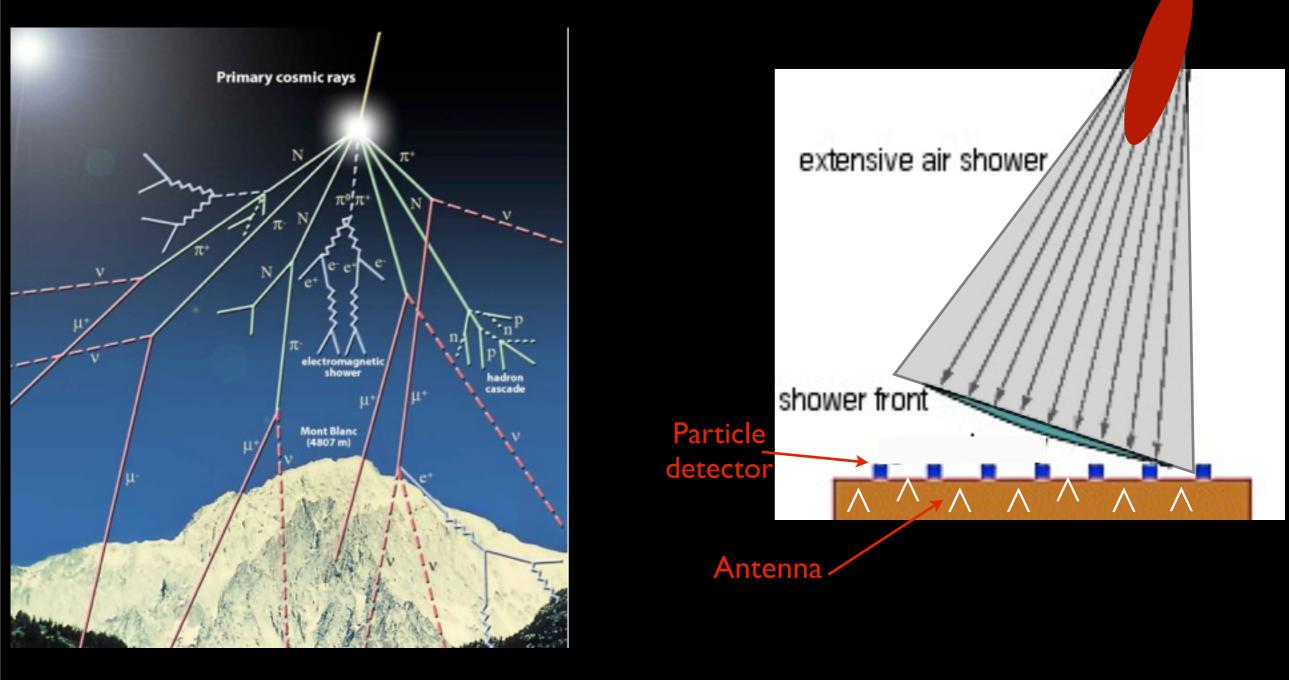


LORA LOfar Radboud Air-shower array

Satyendra Thoudam (LOFAR CR group)

Wednesday, 27 October 2010

Cosmic-ray air shower

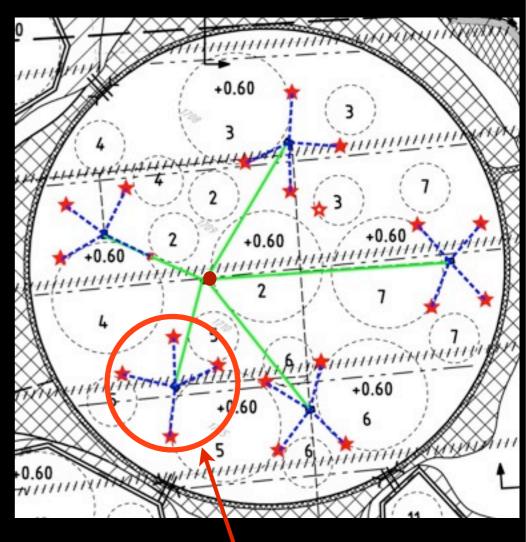


LORA

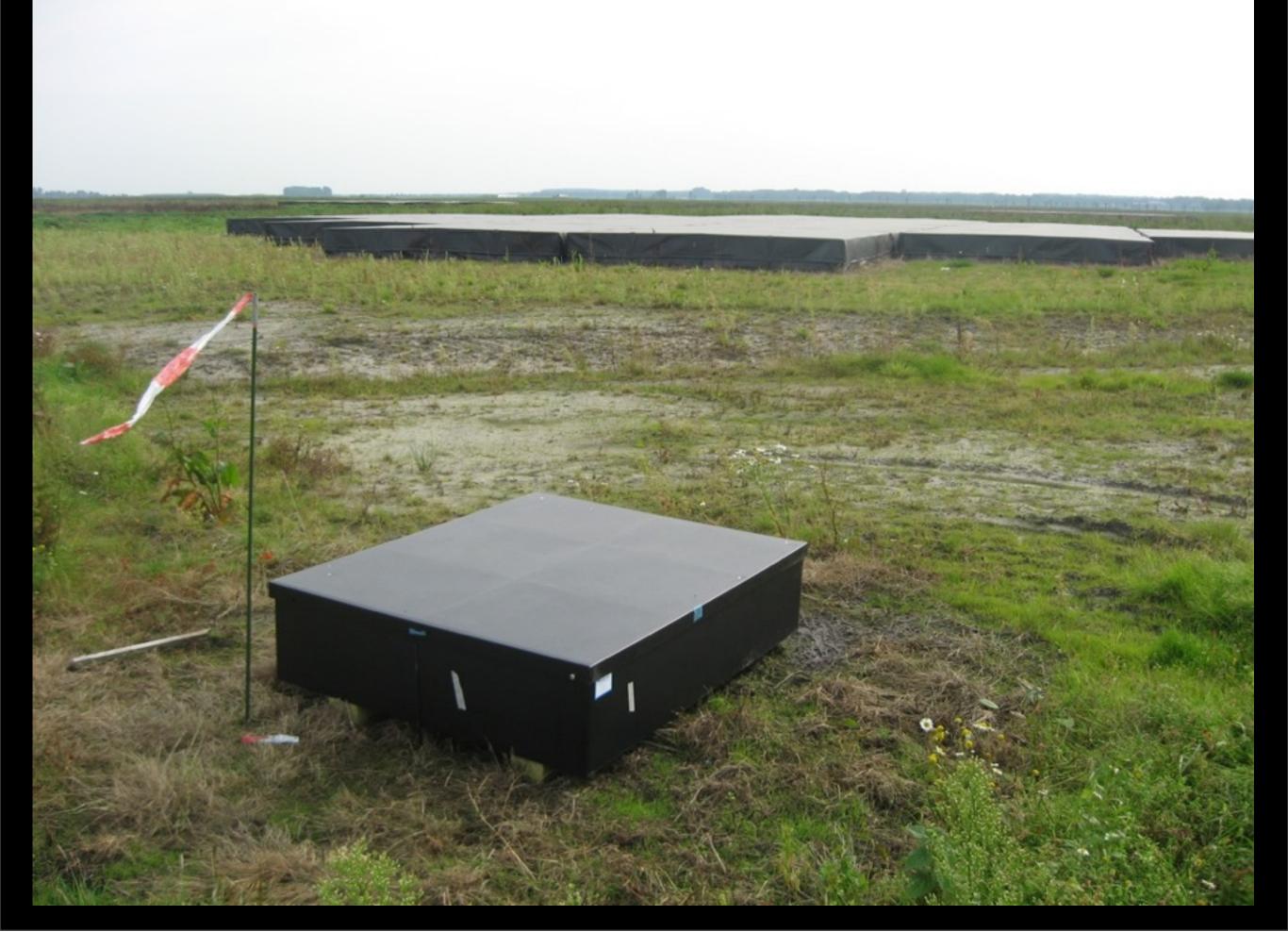
- To trigger & confirm radio detection of cosmic-rays
- To reconstruct air shower parameters

LORA details

- 5 stations with 4 detectors each
- Detectors are plastic scintillators from the KASCADE experiment
- Electronics were developed for the HISPARC experiment
- Each station is handled by a station computer
- Data processing is done by a central master computer



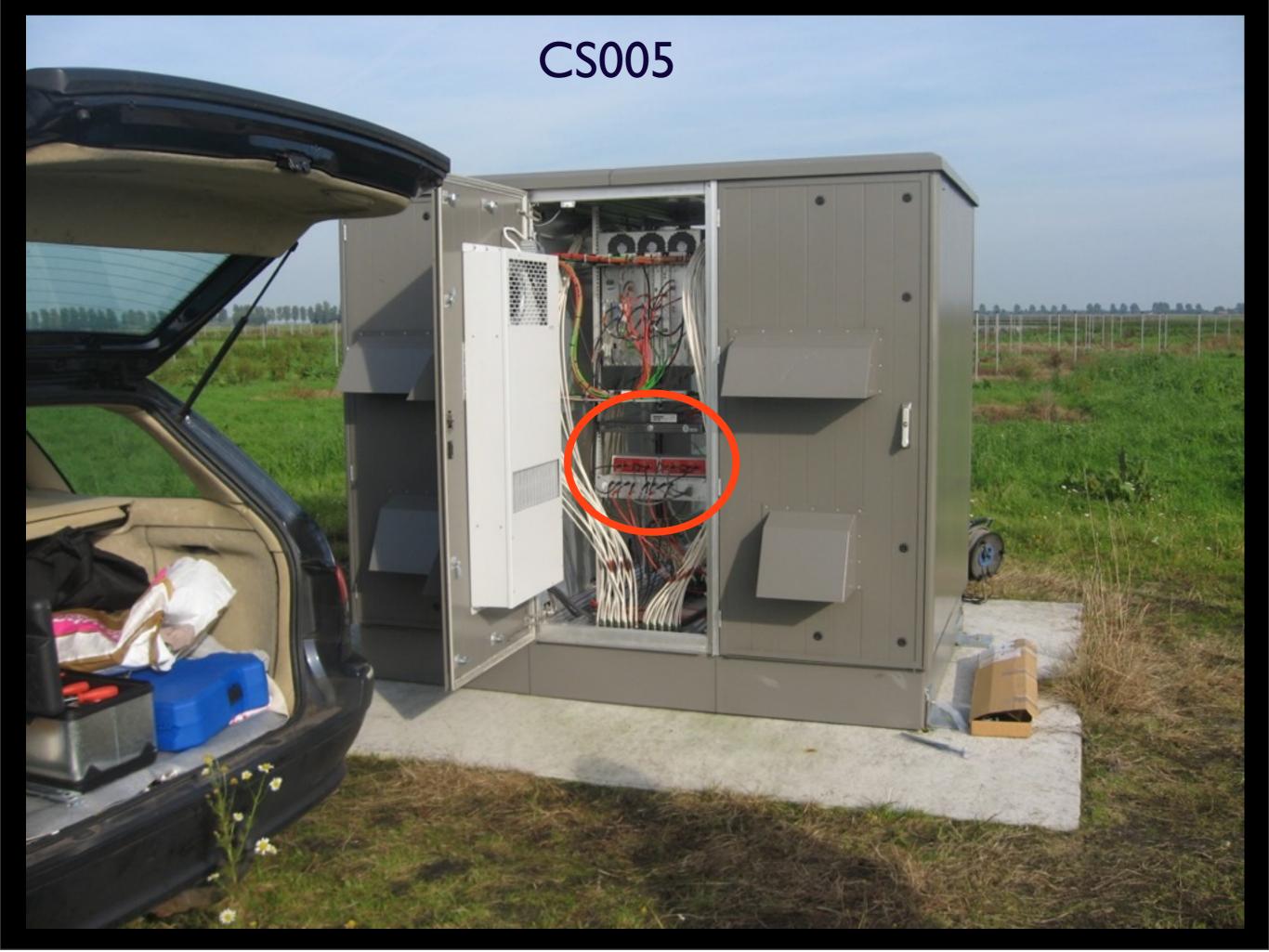
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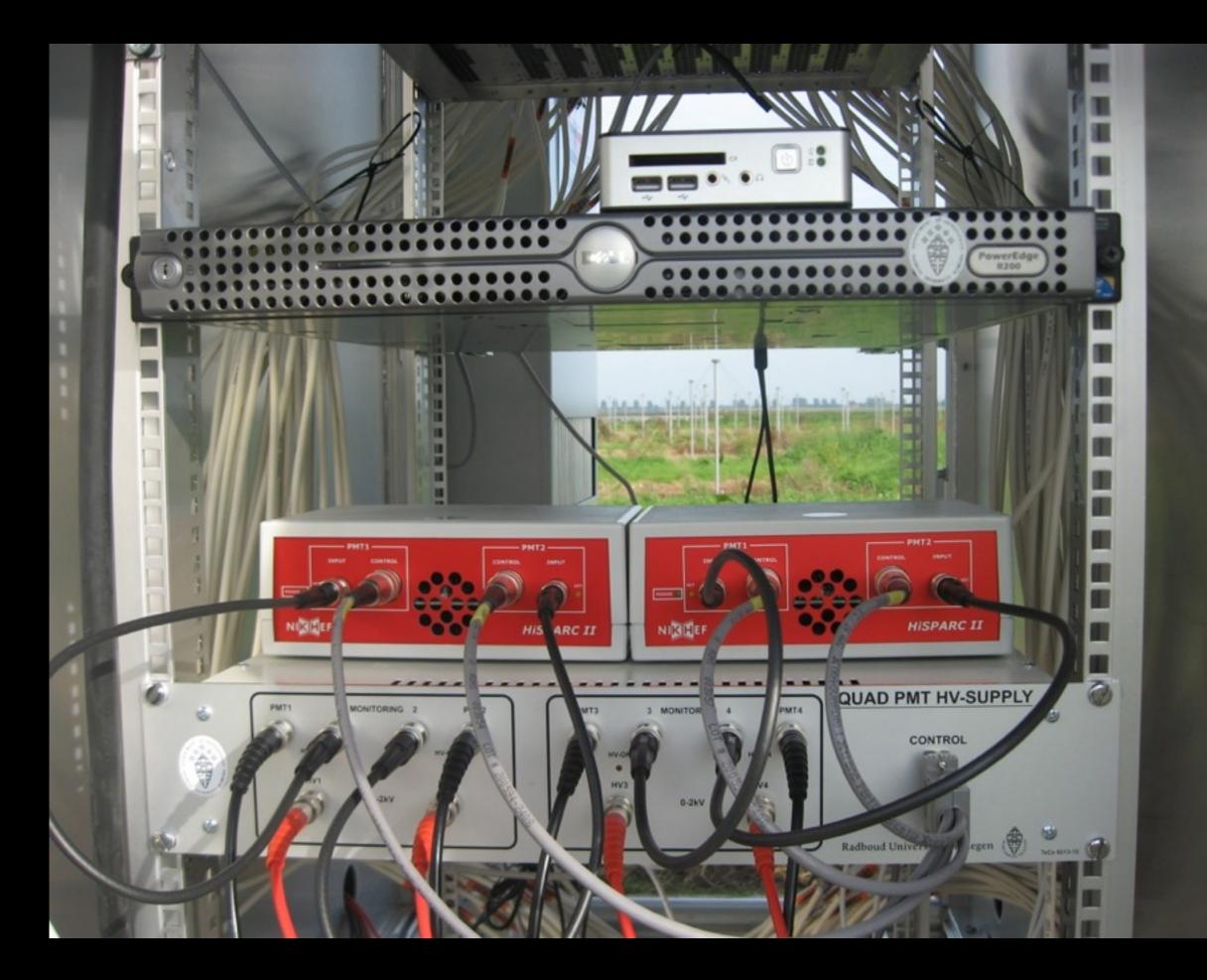




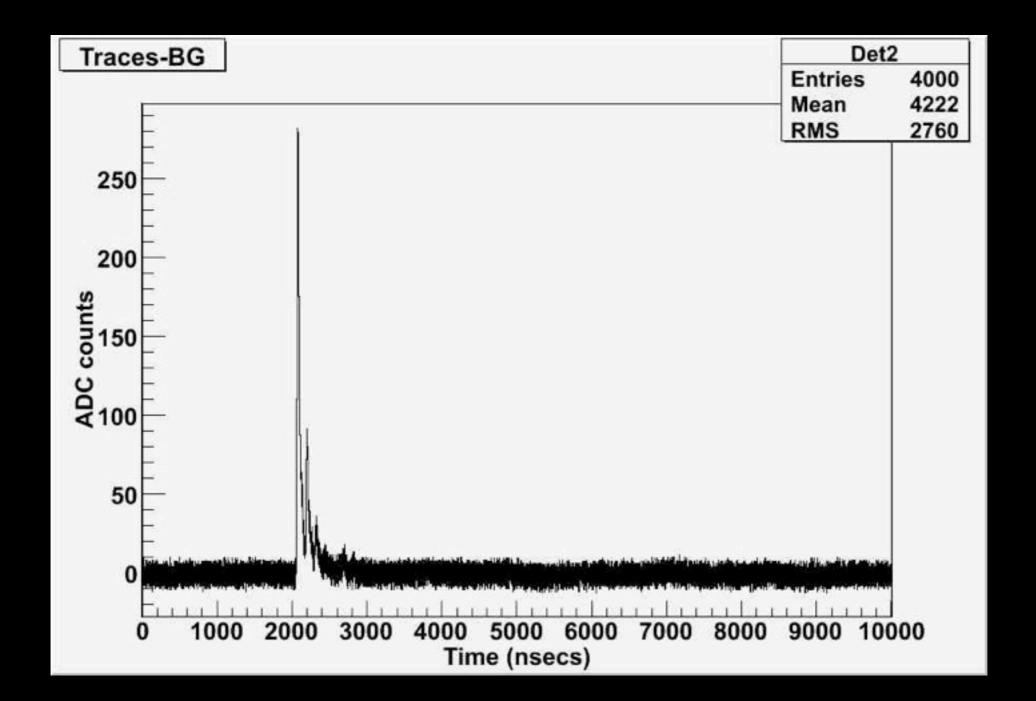


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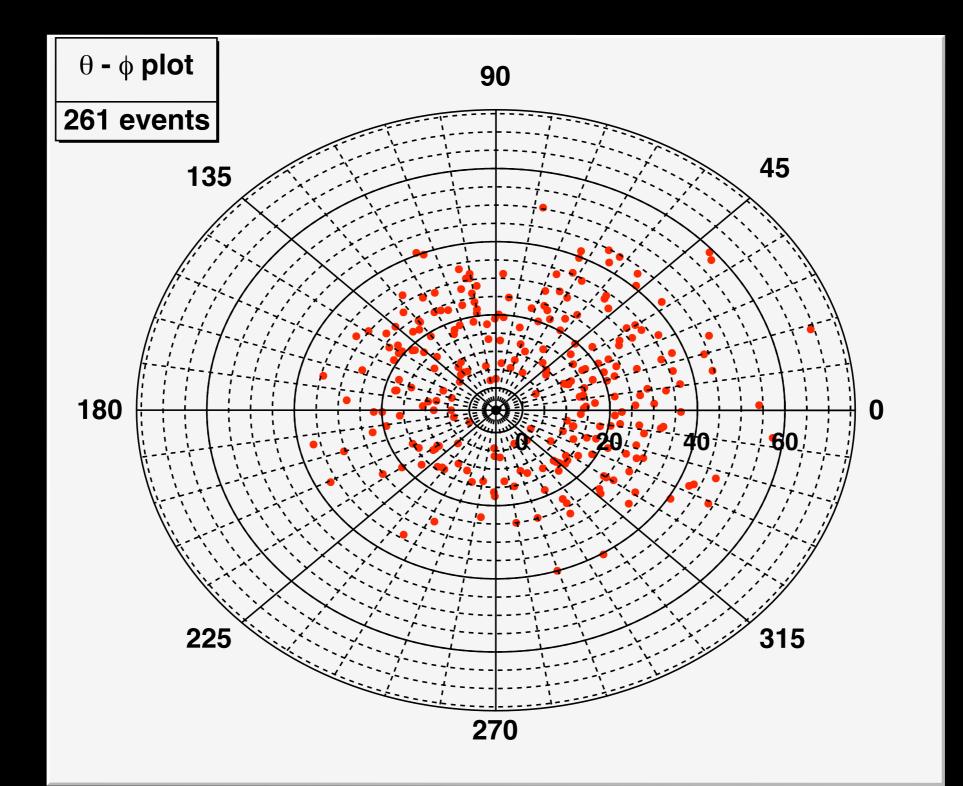




Test results



Test results



Current status & Future plans

- Electronics & DAQ software are tested
- Ist LORA station already installed
- Remaining stations: Hardware components & detectors are ready
- Hoping CR radio-particle detections by the end of 2010!

Lots of things to do

- Network connection
- Measuring electrical length of signal cables
- Measuring positions of the detectors
- Also lots of things for the data analysis software

Thank you !