

Session Program

7-10 Jun 2016

ARENA 2016

Presentations

Groningen, Netherlands
Hampshire Plaza Hotel

Tuesday 7 June

09:20

Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Jaime Alvarez-Muniz

09:20–09:50

Recent results from CODALEMA and the Nan\c cay radio facilities related to cosmic-ray measurements

Speaker

Mr Richard Dallier

09:50–10:10

A Study of radio frequency spectrum emitted by high energy air showers with LOFAR

Speaker

Dr Laura Rossetto

10:10–10:30

Nanosecond-level time synchronization of AERA using a beacon reference transmitter and commercial airplanes

Speaker

Tim Huege

10:30

11:00

Presentations

Session | **Location:** Groningen, Netherlands | **Convener:** Sijbrand De Jong

11:00–11:30

Overview of lunar detection of ultra-high energy particles and new plans for the SKA

Speaker

Clancy James

11:30–11:50

Sensitivity of lunar particle-detection experiments

Speaker

Justin Bray

11:50–12:10

Search for Cosmic Particles with the Moon

Speaker

Dr Tobias Winchen

12:10–12:30

TEC, Trigger and Check: preparing LOFAR for Lunar observations

Speaker

Sander ter Veen

12:30

14:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Mr Richard Dallier

14:00–14:30

ANITA: Current Status and Future Plans

Speaker
Dr Cosmin Deaconu

14:30–14:50 **Search for Cosmic Ray real-time identification with Radio antennas**

Speaker
Antonio Bonardi

14:50–15:10

Influence of atmospheric electric fields on air-shower radio emission measured with AERA

Speaker
Julian Rautenberg

15:10

16:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Prof. Kael Hanson

16:00–16:30 **Neutrino Astronomy: What did we learn, Where should we aim?**

Speaker
Eli Waxman

16:30–16:50

Results and Perspectives of the Auger Engineering Radio Array (overview talk)

Speaker
Christian Glaser

16:50–17:10

SLAC T-510: Accelerator measurements of radio emission from particle cascades in the presence of a magnetic field

Speaker
Katharine Mulrey

17:10–17:30

Modeling of radio emission from a particle cascade in magnetic field and its experimental validation

Speaker
Anne Zilles

17:30

Wednesday 8 June

09:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Jörg Hörandel

09:00–09:30 **Status of air-shower measurements with sparse radio arrays**

Speaker
Frank Schröder

09:30–09:50 **Tunka-Rex: Status, Plans, and Recent Results**

Speaker
Frank Schröder

09:50–10:10

In-situ absolute calibration of electric-field amplitude measurements with the radio detector stations of the Pierre Auger Observatory

Speaker
Florian Briechle

10:10–10:30 **Simulation of the Radiation Energy Release in Air Showers**

Speaker
Christian Glaser

10:30

11:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** R. Lahmann

11:00–11:20

Acoustic detection of high energy neutrinos in Sea Water: Status and Prospects

Speaker
Robert Lahmann

11:20–11:45

Acoustic detection of UHE neutrinos in the Mediterranean sea: status and perspective.

Speaker
Francesco Simeone

11:45–12:05

Construction and test of a multi-purpose deep sea hydrophone array in KM3NeT-Italia

Speakers
Francesco Simeone, Salvatore Viola

12:05–12:25

Data acquisition system for the hydrophone array of KM3NeT-Italia: quest for acoustic UHE neutrino searches

Speakers
Francesco Simeone, Salvatore Viola

12:25-12:45

Development of an acoustic sensor for the future IceCube-Gen2 detector for neutrino detection and position calibration

Speaker

Dirk Heinen

12:45

Thursday 9 June

09:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Tim Huege

09:00–09:30 **Cosmic-ray mass composition with LOFAR**

Speaker
Stijn Buitink

09:30–09:50

Towards a cosmic-ray mass-composition study at Tunka Radio Extension

Speaker
Dmitriy Kostunin

09:50–10:10

Estimation of the composition of cosmic rays from radio measurements with the Auger Engineering Radio Array.

Speaker
Florian Gaté

10:10–10:30

The influence of the atmospheric refractive index on radio measurements of extensive air showers

Speaker
Arthur Corstanje

10:30

11:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Antonio Capone

11:00–11:30 **Acoustic detection of high energy neutrinos in Fresh water**

Speaker
Prof. Nikolay Budnev

11:30–11:50

Signal classification and event reconstruction for acoustic neutrino detection in sea water with KM3NeT

Speaker
Dominik Kießling

11:50–12:10 **A large fiber sensor network for an acoustic neutrino telescope**

Speaker
Dr Ernst-Jan Buis

12:10–12:30 **EnEx-RANGE - Robust autonomous Acoustic Navigation in Glacial ice**

Speaker
Dirk Heinen

12:30

14:00

Presentations: Presentations**Session** | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Prof. Stephanie Wissel14:00–14:30 **Acoustics in water: synergies with marine biology****Speaker**

Dr Mike van der Schaar

14:30–15:00 **Recent results from the ARIANNA neutrino experiment****Speaker**

Dr Anna Nelles

15:00–15:30

Radio Detection of UHE Neutrinos in Ice at the South Pole: The ARA Experience and New Ideas**Speaker**

Prof. Kael Hanson

15:30–15:50

Experimental calibration of the ARA neutrino telescope with an electron beam in ice**Speaker**

Keiichi Mase

15:50

16:20

Presentations: Presentations**Session** | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Keiichi Mase16:20–16:40 **Analysis updates for ARA****Speaker**

Mr Ming-Yuan Lu

16:40–17:00 **Background Rejection in the ARA Experiment****Speaker**

Carl Gilbert Pfindner

17:00–17:20

Phenomenology of transition radiation at radio frequencies from ultrahigh-energy showers**Speaker**

Jaime Alvarez-Muniz

17:20–17:40 **On the radar detection of neutrino induced particle cascades in ice****Speaker**

Krijn de Vries

17:40

Friday 10 June

09:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Julian Rautenberg

09:00–09:30

Phased arrays: A strategy to lower the energy threshold for neutrinos

Speaker

Prof. Stephanie Wissel

09:30–09:50

Proposal for a Giant Radio Array for Neutrino Detection

Speaker

Olivier Martineau

09:50–10:10

The ExaVolt Antenna: Concept and Development Updates

Speaker

Carl Gilbert Pfindner

10:10–10:30

Constraining ultra-high-energy cosmic ray models with cosmogenic neutrino predictions

Speaker

Dr Arjen van Vliet

10:30

11:00

Presentations: Presentations

Session | **Location:** Groningen, Netherlands, Hampshire Plaza Hotel | **Convener:** Rolf Nahnhauer

11:00–11:30

Ultimate precision in cosmic-ray radio detection - the SKA

Speaker

Tim Huege

11:30–11:50

Simulation study on high-precision radio measurements of the depth of shower maximum with SKA1-low

Speaker

Anne Zilles

11:50–12:10

Measurement of horizontal air showers with the Auger Engineering Radio Array

Speaker

Olga Kambeitz

12:30

12:10–12:30

closing