

**Session Program**

**12-15 Jun 2018**



**ARENA 2018 - Acoustic and Radio EeV  
Neutrino Detection Activities**

***Analisys tools***

## Wednesday 13 June

14:30

### Analisis tools: Radio detection 1

**Session | Location:** Laboratori Nazionali del Sud - INFN Via Santa Sofia 62, I-95123 Catania, Italy | **Convener:** ALBRECHT KARLE

14:30-14:50

#### An analytic description of the radio emission of air showers based on its emission mechanisms

**Speaker**

Christian Glaser

14:50-15:10

#### Using FDTD simulations to study radio propagation effects

**Speaker**

Stijn Buitink

15:10-15:30

#### RadioPropa: A Modular Raytracer for In-Matter Radio Propagation

**Speaker**

Tobias Winchen

15:30-15:50

#### A semi-analytic code for the calculation of the radio footprint from an arbitrary shower LDF, MGMR3D

**Speaker**

Olaf Scholten

15:50-16:10

#### Towards online triggering for the radio detection of air showers using deep neural networks

**Speaker**

Florian Führer

16:10-16:30

#### Modeling the Acoustic Field generated by a Pulsed-Beam for Experimental Proton Range Verification

**Speaker**

Elia Arturo Vallicelli

16:30

17:00

### Analisis tools: Radio detection 2

**Session | Location:** Laboratori Nazionali del Sud - INFN Via Santa Sofia 62, I-95123 Catania, Italy | **Convener:** Stephanie Wissel

17:00-17:20

#### Radio universality and template-based pulse synthesis

**Speaker**

David Butler

17:20-17:40

#### Reconstruction of air-shower measurements with AERA in the presence of pulsed radio-frequency interference

<b>Speaker</b> Tim Huege
17:40-18:00
<b>Systematic uncertainty of first-principle calculations of the radiation energy emitted by extensive air showers</b>
<b>Speaker</b> Marvin Gottowik
18:00-18:20
<b>A Rotationally Symmetric Lateral Distribution Function for Radio Emission from Inclined Air Showers</b>
<b>Speaker</b> Tim Huege
18:20-18:40
<b>Determining atmospheric electric fields from the cosmic-ray radio footprint</b>
<b>Speaker</b> Olaf Scholten
18:40-19:00
<b>A new LDF parametrization for the air shower radio footprint applied to LOFAR data</b>
<b>Speaker</b> Jörg Hörandel
19:00-19:20
<b>Atmospheric Effects On The Radio Signal of Extensive Air Showers</b>
<b>Speaker</b> pragati mitra

19:20

## Friday 15 June

09:00

### Analysys tools: Radio detection 3

**Session** | **Location:** Laboratori Nazionali del Sud - INFN Via Santa Sofia 62, I-95123 Catania, Italy | **Convener:** Prof. Abigail Vieregg

09:00-09:20

#### Radio morphing: towards a full parameterization of the radio signal from air-showers

##### Speaker

Anne Zilles

09:20