

## Vulcano Workshop 2014 - Frontier Objects in Astrophysics and Particle Physics



Contribution ID: 51

Type: **not specified**

# LHC results and the interpretation of cosmic ray data

*Wednesday, 21 May 2014 10:40 (25 minutes)*

Measurements of particle production at LHC have given us a better understanding of high-energy multiparticle production. This has led to a reduction of the uncertainties of model predictions. Still there are some surprising observations that are difficult to describe even with models tuned to give a good description of LHC data. After giving an introduction to the relation between air shower observables and properties of hadronic interactions we will discuss LHC and fixed-target measurements with respect to their interpretation within hadronic interaction models. In the second part we will study what we can learn from cosmic ray observations at very high energy and illustrate remaining uncertainties.

**Primary author:** ENGEL, Ralph (Karlsruhe Institute of Technology (KIT))

**Co-authors:** ULRICH, Ralf (KIT); Dr PIEROG, Tanguy (Karlsruhe Institute of Technology (KIT))

**Presenter:** ENGEL, Ralph (Karlsruhe Institute of Technology (KIT))

**Session Classification:** Particle Physics/Interactions/Astroparticle Physics