

# **CORSIKA Cosmic Ray Simulation Workshop [virtual]**

**Monday, June 22, 2020 - Thursday, June 25, 2020**

**virtual**

## **Scientific Program**

**The CORSIKA Cosmic Ray Simulation Workshop 2020** is an open and general meeting for everybody interested in **air shower physics** and related topics.

It is one goal of the workshop to give a full review of the current state of air shower modelling in our field covering all important issues. Besides astroparticle physics, this includes also associated fields like accelerator-based particle physics, computational science, etc.

We invite for contributions from experiments, applications by observatories, theorists and phenomenologist to describe their requirements and wishes. The purpose of this is to identify common needs and the optimal functionality of the CORSIKA 8 project. We are still in a phase of large flexibility in CORSIKA 8 and can extend and fine-tune its capabilities in a wide range. It is our goal to provide the best possible tool for particle cascade simulations in astroparticle physics.

The active development on CORSIKA 8 started in summer 2018. We have seen a lot of contributions and tremendous progress since then. The main goals have been published in a white paper, and it is important to review the actual design decisions and implementations. CORSIKA 8 is about to enter in a transition phase where we will move from almost pure "framework implementation" towards a much more physics driven development. We will have to start to include and provide the best possible physics for hadrons, electrons, photons and muons from below MeV to above EeV energies. The baseline physics is all available in CORSIKA 7, and this is our ultimate benchmark.