

Status and prospects of the CORSIKA 8 air shower simulation framework

Thursday, 28 July 2022 17:30 (15 minutes)

The Fortran-versions of the CORSIKA air shower simulation code have been at the core of simulations for many astroparticle physics experiments for the last 30 years. Having grown over decades into an ever more complex software, maintainability of CORSIKA has become increasingly difficult, though its performance is still excellent. Since 2018, therefore a complete rewrite of CORSIKA has begun in modern modular C++. Today, CORSIKA 8 has reached important milestones with a full-fledged implementation of both the hadronic and electromagnetic cascades, the ability to simulate radio and Cherenkov-light emission from air showers and an unprecedented flexibility to configure simulation media and their geometries.

This presentation will discuss the current status of CORSIKA 8, highlight the new possibilities already available, and future prospects of this new air shower simulation framework.

Primary author: SANDROCK, Alexander (Bergische Universität Wuppertal)

Presenter: SANDROCK, Alexander (Bergische Universität Wuppertal)

Session Classification: Parallel 1

Track Classification: EAS