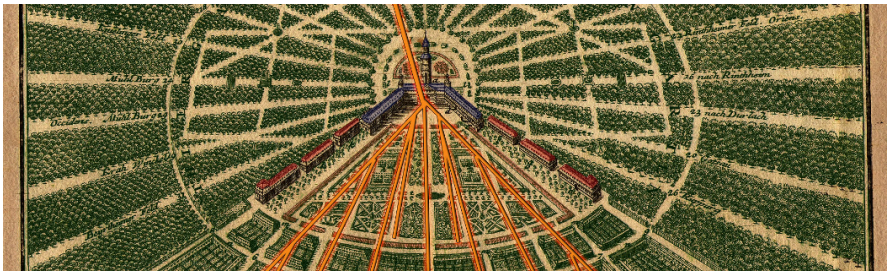

Contribution ID: **72** Type: **not specified**

Handling the metadata for large amount of CORSIKA simulations

Wednesday, June 19, 2019 9:35 AM (20 minutes)

There are many reasons for producing millions of equitype CORSIKA simulations, e.g. to cover necessary parameter space for the model or to fit experimental data. Moreover, sometimes it is necessary to perform fast pre-simulations, e.g. with CONEX or other computation-reduced options. We present a SIMulation Manager (SIMM) framework for steering, running and evaluating status of CORSIKA simulations. The main features of SIMM is the interface for CORSIKA configuration, scheduling the simulations for running on distributed resources, integration with Auger Offline software and flexible plugin-based framework for custom simulation sequences (i.e. CONEX-CORSIKA-CoREAS with evaluation at each step). The software is implemented on Python with SQLAlchemy framework, which allows one to use any of SQL engines for metadata storage. We are successfully using SIMM more than five years for the handling simulations for Tunka-Rex and TAIGA experiments. The ideas developed in the frame of SIMM can be further used in future Astroparticle Data Life Cycle frameworks.

Summary

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